

Public Part C

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
PUBLIC PART C		
<p>Comment #1066 Melinda McWilliams</p>	<p>To: Scott Franklin Moffat EIS Project Manager</p> <p>From: Melinda McWilliams [REDACTED]</p> <p>Date: February 23, 2010</p> <p>Subject: Comments to Moffat Project DEIS</p> <p><u>ALGAE</u></p> <p>I have been a full-time resident of Fraser, Colorado since July 2002. I regularly walk the section of the Fraser River Trail between Safeway and Rendezvous. This trail follows the Fraser River with views of the streambed and floodplain. Every year during low summer flows from the transmountain diversions I have noticed thick algae on most of the rocks and in the streambed. Sometimes the water has a weird organic smell. The presence of this algae, what has caused it and what effects it is having on the stream environment is not addressed in the DEIS in the sections on affected environment, environmental consequences or cumulative effects. This is a serious omission. I suspect that the algae can be attributed to nutrient concentrations from the low flows. This algae problem should be addressed in the final EIS - cause, effects and mitigation measures.</p> <p>Also the DEIS should, but does not address the impacts to Grand Lake caused by increased nutrient concentrations from low flows in the Fraser River. Water from the Fraser River is pumped by the Northern Colorado Water Conservancy District through Grand Lake. In the 1950's Grand Lake was clear enough to see objects 30 feet below the surface. In the summer of 2007 an algae bloom turned the lake "puke green" and health warnings were posted along the shoreline. Reduced water quality in Grand Lake from reduced flows in the Fraser River is a cumulative effect that should be analyzed and mitigated in the final EIS.</p> <p><u>FLUSHING FLOWS</u></p> <p>The discussion of flushing flows (Chapter 4, page 4-314) relative to maintenance of stream bottom substrata does not give any data about the natural frequency, duration or volume of flushing flows for the Fraser River pre-diversion and post-diversion. Also there is no data to establish what constitutes an adequate flushing flow for maintaining the health of this river. Therefore there is no basis for the conclusion that the "flushing of fine sediments would continue with the Proposed Action as the flows would be much higher than needed to transport sediment". This statement is totally subjective opinion since there is no data to determine what constitutes "much higher". The final EIS should require the appropriate data to back up all conclusions regarding the effects of reduced stream flows from increased diversions on flushing flows for the Fraser River.</p> <p>The discussion of flushing flows (Chapter 4) relative to density of aquatic biological communities states that a reduction in peak runoff flows would result in increased habitat availability. Again this conclusion is subjective opinion as there is no data about habitat availability in the Fraser River pre-diversion and post-diversion. If the Fraser River was known as a high quality trout stream prior to the diversions it seems an odd conclusion that the habitat will be better with reduced flows. The final EIS should require the appropriate data specific to the Fraser River to support any conclusions regarding habitat availability.</p> <p style="text-align: right;">mm1</p>	<p>Comment #1066-1 (ID 2042): <i>I have been a full-time resident of Fraser, Colorado since July 2002. I regularly walk the section of the Fraser River Trail between Safeway and Rendezvous. This trail follows the Fraser River with views of the streambed and floodplain. Every year during low summer flows from the transmountain diversions I have noticed thick algae on most of the rocks and in the streambed. Sometimes the water has a weird organic smell. The presence of this algae, what has caused it and what effects it is having on the stream environment is not addressed in the DEIS in the sections on affected environment, environmental consequences or cumulative effects. This is a serious omission. I suspect that the algae can be attributed to nutrient concentrations from the low flows. This algae problem should be addressed in the final EIS -cause, effects and mitigation measures.</i></p> <p>Response #1066-1: The third paragraph of Draft Environmental Impact Statement (DEIS) Section 4.9.1.2 states: "Didymo apparently prefer cool temperatures and moderate to fast waters with relatively high base flows during the low flow part of the year (Kumar et al. 2009). Reduced flows or higher temperatures may discourage Didymo. The similarities in base flows in late summer and in the sediment transport (flushing) capabilities of the Fraser River indicate that the Proposed Action and other Project alternatives would have no impact on Didymo." Additional discussions on algae (Didymo) have been added to Final Environmental Impact Statement (FEIS) Sections 4.6.11 and 5.11.</p> <p>A more detailed evaluation of temperature analysis on the Fraser River and the Colorado River (between the Fraser River and the Blue River) was performed for the FEIS (see Sections 4.6.2 and 5.2).</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p><u>CUMULATIVE EFFECTS</u></p> <p>The DEIS cumulative effects analysis does not comply with NEPA. Chapter 5.1 states that the "cumulative effects analysis of the Moffat Project evaluates past and present actions that continue to influence existing environmental conditions." However I can find no discussion that evaluates the environmental conditions of and effects to the Fraser River as a result of the past trans-basin diversions. The document only lists these diversions and states that approximately 50% of the average annual native flows of the Fraser River have been diverted for a 30- year period (1975-2004). There is no data in this chapter or in the affected environment or environmental consequences chapters that evaluates the effects to the Fraser River from removing 50% of native flows annually for 30 years. Without this data it is no surprise that the DEIS concludes that the effects of removing 80% of the annual native flows from the Fraser River forever are minor. The PACSM model used for analysis only considers stream flow data of past, present and future actions. It does not include the environmental effects of these changes in stream flow.</p> <p>Section 5.2 states that "the identification of the past actions is critical to understanding the environmental conditions of an area. Knowing whether a resource is healthy, declining, near collapse or not functioning is necessary for determining the significance of any added impacts due to the Moffat Project". I find the entire DEIS inadequate in its discussion and analysis of the Fraser River relative to this quoted statement. Again, the effects of the past trans-basin diversions are not adequately evaluated (see paragraph above). It should be noted that in 2005, American Rivers listed the Fraser River as the 3rd most endangered river in the United States due to the extensive quantity of water currently being diverted to the Front Range. Yet, the DEIS implies, in its lack of data, that the Fraser River is healthy. The trans-basin diversions take the water out of the Fraser River permanently as opposed to water used locally for municipal, agricultural and other uses, much of which is returned to the river. It is reasonable to assume that there are adverse effects from this permanent removal of the water from the Fraser River but the DEIS does not identify nor address these effects.</p> <p><u>MITIGATION</u></p> <p>The detailed Mitigation Plan should be a part of the final EIS, not just the 404 permit. Without this information it is not possible to truly evaluate the environmental consequences of the proposed action.</p> <p>The Grand County Stream Management Plan should be the primary guideline for determining required mitigation measures.</p> <p>The DEIS does not include any mitigation measures for the stated unavoidable effects of reduced streamflow in the Fraser River. The reduced streamflows in the Fraser Rivers are the primary issue for those of us in Grand County. So Grand County is supposed to bear all the environmental and economic consequences of the proposed action without any mitigation. Mitigation in the final EIS should require adequate year-round baseline streamflows based on the Grand County Stream Management Plan.</p> <p><u>CONSERVATION</u></p> <p>The DEIS does not include increased or mandatory conservation efforts by Denver Water as part of the proposed action, as an alternative to the proposed action or as mitigation for the proposed action. This should be corrected in the final EIS. Conservation is mentioned only in the Appendices with the brochure <u>Solutions 2009</u>. More stringent conservation measures could reduce or eliminate the need to take extra water from West Slope stream segments. Increased mandatory conservation measures should, as a minimum, be required mitigation for the reduced streamflows caused by the proposed action.</p>	<p>Comment #1066-2 (ID 2041): <i>Also the DEIS should, but does not address the impacts to Grand Lake caused by increased nutrient concentrations from low flows in the Fraser River. Water from the Fraser River is pumped by the Northern Colorado Water Conservancy District through Grand Lake. In the 1950's Grand Lake was clear enough to see objects 30 feet below the surface. In the summer of 2007 an algae bloom turned the lake "puke green" and health warnings were posted along the shoreline. Reduced water quality in Grand Lake from reduced flows in the Fraser River is cumulative effect that should be analyzed and mitigated in the final EIS.</i></p> <p>Response #1066-2: Additional water quality analysis has been performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1066-3 (ID 2040): <i>FLUSHING FLOWS The discussion of flushing flows (Chapter 4, page 4-3 14) relative to maintenance of stream bottom substrata does not give any data about the natural frequency, duration or volume of flushing flows for the Fraser River pre-diversion and post-diversion . Also there is no data to establish what constitutes an adequate flushing flow for maintaining the health of this river. Therefore-there is no basis for the conclusion that the "flushing of fine sediments would continue with the Proposed Action as the flows would be much higher than needed to transport sediment". This statement is totally subjective opinion since there is no data to determine what constitutes "much higher". The final EIS should require the appropriate data to back up all conclusions regarding the effects of reduced stream flows from increased diversions on flushing flows for the Fraser River.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>The Denver Water Solutions 2009 brochure lists four targeted conservation programs. Other than irrigation efficiency these programs do not include converting traditional landscapes to Xeriscapes as a major way to conserve water. About 50% of the Fraser River waters diverted are used for outdoor lawn watering in Denver's arid environment. (This information should be included in Chapter 3, Affected Environment under hydrology of the river segments.) The 1999 Residential End Uses of Water Study (Maycr,P.et.al) cites that 62% of single family residential water use is for outdoor lawn watering. The book <i>Waterwise Landscaping</i> by Jim Knopf, 1999, lists the following average seasonal inches of added irrigation water needed by typical Denver turf (page5): Kentucky Bluegrass - 30 inches, Turf-type Tall Fescue - 15 inches and Buffalograss - 4.5 inches. This shows that there are viable alternatives to bluegrass that can save significant amounts of water used for turf watering.</p> <p>However, Denver Water is obstinate about not implementing this significant conservation action that could make a major difference in water conservation - that of prohibiting future plantings of Kentucky Bluegrass (bluegrass) lawns and providing incentives to convert existing bluegrass lawns to more waterwise turf varieties. <i>Solutions 2009</i> states that green lawns are very important to 64% of Denver Water customers. (The importance increases with income, so those with money are oblivious to their impacts to the Fraser River and other West Slope streams. Ironically they are probably the same people who own second homes in Grand County.) So rather than educating their customers as to why bluegrass lawns are inappropriate for the Denver climate, Denver Water's conservation focus is on efficient irrigation of these lawns. This is not an acceptable solution to this issue.</p> <p>The issue of water usage associated with Kentucky Bluegrass lawns on the Front Range was raised at the Moffat Project public hearing in Grand County December 2, 2009. Denver Water's reply was that restricting residents from growing bluegrass lawns is a "bigger issue than just Denver Water". (Quote is from an article in the local newspaper about the hearing.) This is another example of their entrenched thinking about this problem. Denver Water could certainly take the lead on this issue. It's ironic that Denver Water holds the trademark for the term Xeriscape as well as the official logo but takes such a position. It shows that Denver Water is willing to dry up the Fraser River so that their customers can have their bluegrass lawns. This issue should be addressed in the environmental consequences of the final EIS because it has direct impacts on the streamflows in the Fraser River relative to the increased amounts of water that Denver Water proposes to divert.</p> <p>The final EIS should include an analysis of how much water could be saved by converting existing bluegrass lawns in the Denver Water service area to other waterwise turf varieties. There is data for such an analysis in the book <i>Waterwise Landscaping</i> cited above. For example this book states (page 15) that "For every 1,000 traditional residential landscapes converted to Xeriscapes, 100-150 gallons per minute could be added to instream flows, according to a Colorado hydrologist." This book also cites (page 15) that Denver Water conserved about 30,000 acre feet per year between 1980 and 1994 which amounts to a yearly flow of 40 cubic feet per second per day which is equal to 1.5 times the entire average annual flow of the Fraser River at Winter Park. So conservation is an important analytical tool that should be used to address the impacts of the proposed action. I think such an analysis could change the proposed action and the conclusions regarding its impacts. At the very least, restricting and converting bluegrass lawns should be required mitigation for the unavoidable reduced streamflows.</p>	<p><i>The discussion of flushing flows (Chapter 4) relative to density of aquatic communities states that a reduction in peak runoff flows would result in increased habitat availability. Again this conclusion is subjective opinion as there is no data about habitat availability in the Fraser River pre-diversion and post-diversion. If the Fraser River was known as a high quality trout stream prior to the diversions it seems an odd conclusion that the habitat will be better with reduce flows. The final EIS should require the appropriate data specific to the Fraser River to support an conclusions regarding habitat availability.</i></p> <p>Response #1066-3: High spring flows would still occur with the Moffat Collection System Project (Moffat Project or Project) on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cubic feet per second (cfs) versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7 percent (%). At the Fraser River below the confluence with Crooked Creek, which is downstream of all Board of Water Commissioners (Denver Water) diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Sections 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, Indicators of Hydrologic Alteration (IHA) was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the right-of-way (ROW) agreements with the U.S. Forest Service (USFS).</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>The analysis of stream morphology was expanded to include a Phase 2 sediment transport evaluation. As part of this assessment, flows required to mobilize different particle sizes were quantified and the flow at which stream bed mobilization occurs was estimated. Results of this analysis were incorporated into an evaluation to quantify the duration, frequency and magnitude of flows</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>exceeding the Phase 2 sediment transport threshold as well as changes to other high magnitude flood events. Changes resulting from the proposed Project were quantified. Results are provided in FEIS Sections 4.6.3 and 5.3. This evaluation does not include an assessment of pre-diversion conditions.</p> <p>The quality of the pre-diversion fishery cannot be compared to present conditions. Habitat availability on pre-diversion flows could be modeled but is not appropriate for evaluating the effects of the Project. The Physical Habitat Simulation (PHABSIM) information for trout in the river presented in the DEIS and FEIS represents the best available data on habitat at various flows. This is the basis for the conclusions about habitat at peak flows and is not a subjective opinion. A discussion of the effects of flushing flows on aquatic resources was included in the DEIS and an expanded discussion is included in the FEIS in Sections 3.11, 4.6.11, and 5.11.</p> <p>Comment #1066-4 (ID 2039): CUMULATIVE EFFECTS The DEIS cumulative effects analysis does not comply with NEPA. Chapter 5.1 states that the "cumulative effects analysis of the Moffat Project evaluates past and present actions that continue to influence existing environmental conditions." However I can find no discussion that evaluates the environmental conditions of and effects to the Fraser River as a result of the past trans-basin diversions. The document only lists these diversions and states that approximately 50% of the average annual native flows of the Fraser River have been diverted for a 30- year period (1975-2004). There is no data in this chapter or in the affected environment or environmental consequences chapters that evaluates the effects to the Fraser River from removing 50% of native flows annually for 30 years. Without this data it is no surprise that the DEIS</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>concludes that the effects of removing 80% of the annual native flows from the Fraser River forever are minor. The PACSM model used for analysis only considers stream flow data of past, present and future actions. It does not include the environmental effects of these changes in stream flow. Section 5.2 states that "the identification of the past actions is critical to understanding the environmental conditions of an area. Knowing whether a resource is healthy, declining, near collapse or not functioning is necessary for determining the significance of any added impacts due to the Moffat Project". I find the entire DEIS inadequate in its discussion and analysis of the Fraser River relative to this quoted statement. Again, the effects of the past trans-basin diversions are not adequately evaluated (see paragraph above). It should be noted that in 2005, American Rivers listed the Fraser River as the 3rd most endangered river in the United States due to the extensive quantity of water currently being diverted to the Front Range. Yet, the DEIS implies, in its lack of data, that the Fraser River is healthy. The trans-basin diversions take the water out of the Fraser River permanently as opposed to water used locally for municipal, agricultural and other uses, much of which is returned to the river. It is reasonable to assume that there are adverse effects from this permanent removal of the water from the Fraser River but the DEIS does not identify nor address these effects.</i></p> <p>Response #1066-4: Council on Environmental Quality (CEQ) interprets National Environmental Policy Act of 1969, as amended (NEPA) regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the action and its alternatives may have a continuing,</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>additive and significant relationship to those effects. The environmental analysis required under NEPA is forward-looking, in that it focuses on the potential impacts of the proposed action that an agency is considering. Thus, review of past actions is required to the extent that this review informs agency decision-making regarding the proposed action.</p> <p>The U.S. Army Corps of Engineers (Corps) has considered that past water-related actions, such as impoundments and diversions, have affected the Colorado River and are accounted for in the analysis of Current Conditions. The DEIS catalogues a list of past projects in Section 5.2. These projects were included in the Platte and Colorado Simulation Model (PACSM) to sufficiently account for and represent past actions. In addition, effects of past actions on existing flows are accounted for and disclosed in the DEIS Chapter 3 Affected Environment, specifically Section 3.1 Hydrology.</p> <p>The Corps provided additional information on past actions in FEIS Section 4.2. This was accomplished by qualitatively assessing the environment approximately 200 feet upstream and downstream of representative Denver Water diversions. The upstream conditions were meant to coincide with pre-diversion conditions. A combination of streams with and without bypass flows were evaluated (e.g., St. Louis Creek, Jim Creek, etc.) using historic photo documentation and aerial photography. Additionally, FEIS Section 3.1.5 was expanded to include a discussion of virgin flows and the percentage of monthly virgin flows diverted by Denver Water. This allows the reader to compare natural flows with past diversions at each of Denver Water's diversions locations modeled in PACSM.</p> <p>PACSM was used as a tool to assess stream flow changes. These changes were then evaluated for</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>each relevant resources, as described in FEIS Chapter 4.</p> <p>American Rivers Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>Comment #1066-5 (ID 2038): <i>MITIGATION The detailed Mitigation Plan should be a part of the final EIS, not just the 404 permit. Without this information it is not possible to truly evaluate the environmental consequences of the proposed action. The Grand County Stream Management Plan should be the primary guideline for determining required mitigation measures. The DEIS does not include any mitigation measures for the stated unavoidable effects of reduced streamflow in the Fraser River. The reduced streamflows in the Fraser Rivers are the primary issue for those of us in Grand County. So Grand County is supposed to bear all the environmental and economic consequences of the proposed action without any mitigation. Mitigation in the final EIS should require adequate year-round baseline streamflows based on the Grand County Stream Management Plan.</i></p> <p>Response #1066-5: The Grand County Stream Management Plan (GCSMP) has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>(Sections 3.2 and 4.6.2), channel morphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15). Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>FEIS Appendix M contains a Conceptual Mitigation Plan proposed by Denver Water to mitigate Project-related impacts identified in the Environmental Impact Statement (EIS). The Corps will determine if the proposed mitigation would offset identified impacts. The final mitigation measures will be specified by the Corps as Section 404 Permit conditions, if a permit is issued.</p> <p>Comment #1066-6 (ID 2037): <i>CONSERVATION The DEIS does not include increased or mandatory conservation efforts by Denver Water as part of the proposed action, as an alternative to the proposed action or as mitigation for the proposed action. This should be corrected in the final EIS. Conservation is mentioned only in the Appendices with the brochure Solutions 2009. More stringent conservation measures could reduce or eliminate the need to take extra water from West Slope stream segments. Increased mandatory conservation measures should, as a minimum, be required mitigation for the reduced streamflows caused by the proposed action. The Denver Water Solutions 2009 brochure lists four targeted conservation programs. Other than irrigation efficiency these programs do no include converting traditional landscapes to Xeriscapes as a major way to conserve water. About 50% of the Fraser River waters diverted are used for outdoor lawn watering</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>in Denver's arid environment. (This information should be included in Chapter 3, Affected Environment under hydrology of the river segments.) The 1999 Residential End Uses of Water Study (Mayer, P. et. al) cites that 62% of single family residential water use is for outdoor lawn watering. The book Waterwise Landscaping by Jim Knopf, 1999, lists the following average seasonal inches of added irrigation water needed by typical Denver turf (page 5): Kentucky Bluegrass - 30 inches, Turf-type Tall Fescue - 15 inches and Buffalograss - 4.5 inches. This shows that there are viable alternatives to bluegrass that can save significant amounts of water used for turf watering. However, Denver Water is obstinate about not implementing this significant conservation action that could make a major difference in water conservation - that of prohibiting future plantings of Kentucky Bluegrass (bluegrass) lawns and providing incentives to convert existing bluegrass lawns to more waterwise turf varieties. Solutions 2009 states that green lawns are very important to 64% of Denver Water customers. (The importance increases with income, so those with money are oblivious to their impacts to the Fraser River and other West Slope streams. Ironically they are probably the same people who own second homes in Grand County.) So rather than educating their customers as to why bluegrass lawns are inappropriate for the Denver climate, Denver Water's conservation focus is on efficient irrigation of these lawns. This is not an acceptable solution to this issue. The issue of water usage associated with Kentucky Bluegrass lawns on the Front Range was raised at the Moffat Project public hearing in Grand County December 2, 2009. Denver Water's reply was that restricting residents from growing bluegrass lawns is a "bigger issue than just Denver Water". (Quote is from an article in the local newspaper about the hearing.) This is another example of their entrenched thinking about this problem. Denver</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>Water could certainly take the lead on this issue. It's ironic that Denver Water holds the trademark for the term Xeriscape as well as the official logo but takes such a position. It shows that Denver Water is willing to dry up the Fraser River so that their customers can have their bluegrass lawns. This issue should be addressed in the environmental consequences of the final EIS because it has direct impacts on the streamflows in the Fraser River relative to the increased amounts of water that Denver Water proposes to divert. The final EIS should include an analysis of how much water could be saved by converting existing bluegrass lawns in the Denver Water service area to other waterwise turf varieties. There is data for such an analysis in the book Waterwise Landscaping cited above. For example this book states (page 15) that "For every 1,000 traditional residential landscapes converted to Xeriscapes, 100-150 gallons per minute could be added to instream flows, according to a Colorado hydrologist." This book also cites (page 15) that Denver Water conserved about 30,000 acre feet per year between 1980 and 1994 which amounts to a yearly flow of 40 cubic feet per second per day which is equal to 1.5 times the entire average annual flow of the Fraser River at Winter Park. So conservation is an important analytical tool that should be used to address the impacts of the proposed action. I think such an analysis could change the proposed action and the conclusions regarding its impacts. At the very least, restricting and converting bluegrass lawns should be required mitigation for the unavoidable reduced streamflows.</i></p> <p>Response #1066-6: Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of 18,000 acre-feet (AF). Denver Water is implementing an aggressive conservation plan in</p>


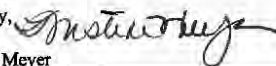

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need and future conservation is assumed in all of the alternatives evaluated in the EIS.</p> <p>Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 acre-feet per year (AF/yr) of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in the DEIS and FEIS Table 1-2.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Operating Rules including mandatory restrictions on the number and times of day (10:00 in the morning [a.m.] – 6:00 in the evening [p.m.]) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted).</p> <p>Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1068 Kristine Meyer</p>	<div style="text-align: center;">  </div> <p>February 27, 2010</p> <p>Mr. Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 South Wadsworth Blvd Littleton, CO 80128</p> <p>Dear Mr. Franklin,</p> <p>I am very concerned about the possible effects of the Moffat Expansion Project. I have lived in Grand County for 25 years and have seen the impact of the water diversion to Denver over time. When I first moved here, the Fraser River ran full and free. Now it is down to a trickle many months of the year.</p> <p>I am most concerned that aquatic life in the river does not have the habitat it needs to spawn due to less water and changes in temperatures. I think it is very important that the Permit contain and guarantee adequate year-round base line stream flows in the Fraser, Colorado and Williams Fork rivers and guarantee adequate flushing and channel maintenance flows necessary for maintaining the rivers' ecosystems.</p> <p>The permit should prohibit diversions when stream temperatures threaten to exceed State standards protective of aquatic life. The Army Corps of Engineers should require, as part of the EIS, that gauges monitoring the bypass flows are place directly below Denver Water's diversion points to ensure accurate measurement of bypass flows.</p> <p>To protect future generations, the EIS must have a "reopening clause" that allows the permit process to be reopened if predetermined biological damage occurs or if temperatures that threaten aquatic life are reached. It also needs to include funding and a process for independent monitoring of water quality and impacts on aquatic life.</p> <p>It is my understanding that one of the main responsibilities of the Corps of Engineers is to protect the environment. I hope they will take that responsibility very seriously in this case.</p> <p>Sincerely,  Kristine Meyer </p>	<p>Comment #1068-1 (ID 2047): <i>I am very concerned about the possible effects of the Moffat Expansion Project. I have lived in Grand County for 25 years and have seen the impact of the water diversion to Denver over time. When I first moved here, the Fraser River ran full and free. Now it is down to a trickle many months of the year.</i></p> <p>Response #1068-1: The Corps notes the comment. Denver Water has been diverting water from the Fraser River and its tributaries since 1936.</p> <p>Comment #1068-2 (ID 2046): <i>I am most concerned that aquatic life in the river does not have the habitat it needs to spawn due to less water and changes in temperatures. I think it is very important that the Permit contain and guarantee adequate year-round base line stream flows in the Fraser, Colorado and Williams Fork rivers and guarantee adequate flushing and channel maintenance flows necessary for maintaining the rivers' ecosystems.</i></p> <p>Response #1068-2: The DEIS and the FEIS both discuss flow changes and diversions with the Project and the potential impacts to habitat for aquatic life and fish populations. This includes evaluations of water temperatures, sedimentation, and channel maintenance. Mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M. Existing minimum stream flows and bypass requirements would not be modified as a result of the Proposed Action.</p> <p>Comment #1068-3 (ID 2045): <i>The permit should prohibit diversions when stream temperatures threaten to exceed State standards protective of aquatic life. The Army Corps of Engineers should require, as part of the EIS, that gauges monitoring the bypass flows are place</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>directly below Denver Water's diversion points to ensure accurate measurement of bypass flows.</i></p> <p>Response #1068-3: In situ temperatures are influenced by climate in addition to flow. Additional water quality analyses have been performed on the Fraser River and the Three Lakes area, including various temperature studies. Refer to FEIS Sections 4.6.2 and 5.2. Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit. Minimum flows are part of the discussion.</p> <p>Comment #1068-4 (ID 2044): <i>To protect future generations, the EIS must have a "reopening clause" that allows the permit process to be reopened if predetermined biological damage occurs or if temperatures that threaten aquatic life are reached. It also needs to include funding and a process for independent monitoring of water quality and impacts on aquatic life.</i></p> <p>Response #1068-4: If issued, a Section 404 Permit would include a statement that the Corps can re-evaluate and re-condition the Section 404 Permit as conditions warrant.</p> <p>Comment #1068-5 (ID 2043): <i>It is my understanding that one of the main responsibilities of the Corps of Engineers is to protect the environment. I hope they will take that responsibility very seriously in this case.</i></p> <p>Response #1068-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1069 Ray Miller</p>	<p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Co. 80128 Re: Comments on Moffat Fanning Project</p> <p>Dear Mr. Franklin:</p> <p>Colorado River water is already over allocated, and the existing diversions have already had a devastating impact on the watershed's marine ecology. The profound alteration of this watershed has been institutionalized so long that east slope development interests have come to view it as a given. We have lost sight of how environmentally and ecologically valuable this watershed is in its natural state. The notion that further east slope growth and development should be facilitated by additional diversion is fundamentally flawed. The benefits of diversion pale in comparison to the benefits of sustaining this native ecosystem. Sustaining natural flows in the Colorado River is far more important than diversion that promotes the extensive non-native landscaping that is prevalent in the east slope communities that are demanding this water. Natural flows in the river are more environmentally essential than the many frivolous uses of water that diversion facilitates.</p> <p>Rapidly diminishing clarity in Grand Lake, rising temperatures in the river, increased nutrient levels</p> 	<p>Comment #1069-1 (ID 2055): Colorado River water is already over allocated and the existing diversions have already had a devastating impact on the watershed's marine ecology. The profound alteration of this watershed has been institutionalized so long that east slope development interests have come to view it as a given. We have lost sight of how environmentally and ecologically valuable this watershed is in its natural state. The notion that further east slope growth and development should be facilitated by additional diversion is fundamentally flawed. The benefits of diversion pale in comparison to the benefits of sustaining this native ecosystem. Sustaining natural flows in the Colorado River is far more important than diversion that promotes the extensive nonnative landscaping that is prevalent in the east slope communities that are demanding this water. Natural flows in the river are more environmentally essential than the many frivolous uses of water that diversion facilitates.</p> <p>Response #1069-1: Water conservation is part of the solution for meeting Denver Water's near time water supply shortfall. Almost half (i.e., 16,000 AF/yr) of the identified supply short-fall would be met with additional conservation savings. Denver Water plans to reduce its demand by 16,000 AF/yr by 2032 with additional conservation measures, which are anticipated to achieve long-term sustainable reductions in water use. An independent review of the projected conservation savings of 16,000 AF/yr was conducted as part of the EIS analysis. Even though Denver Water is not required by any regulations to implement conservation, Denver Water is relying upon these future savings in its demand projections to calculate the need for 18,000 AF/yr of new yield. Refer to FEIS Sections 1.4.1.2 and 1.4.3.1 and Appendix A for a discussion of Denver Water's conservation efforts.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">2</p> <p>and other symptoms are the canaries in the coal mine that this marine ecosystem is approaching critical stress thresholds. It cannot withstand additional diversion. The project analysis fails to consider the inevitable consequences of climate change, which is exacerbate the impacts. The time has come that we recognize and acknowledge that any new diversion schemes are environmentally, ecologically, culturally, economically and morally wrong. Antiquated irrational laws that give east slope communities political power to force their will upon west slope ecosystems must be redressed. That process needs to begin now. The east slope must resolve its water issues on its own turf then a fundamental change in its lifestyle and cultural paradigm. There is vast opportunity to reduce consumption and waste that must be implemented in lieu of additional diversion.</p> <p>Denver Water and Northern Colorado Water are already taking more than 60% of the flow from this watershed. Both entities are proposing simultaneous projects to increase their diversions by 30% each. That adds up to an irrational and unacceptable level. It is essential that these projects be evaluated for their cumulative impact. Failure to do so is irrational.</p> <p>Grand County has commissioned a comprehensive</p>	<p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. to 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1069-2 (ID 2054): Rapidly diminishing clarity in Grand Lake, rising temperatures in the river, increased nutrient levels and other symptoms are the [illegible] in the coal mine that this marine ecosystem is approaching critical stress thresholds. It cannot withstand additional diversion.</p> <p>Response #1069-2: Additional water quality analysis has been performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">3</p> <p>stream management plan based on good science. This plan documents that the watershed has already suffered serious degradation from existing diversion. The draft environmental impact statements for these projects make no recommendations for mitigation of the serious degradation that has already accumulated. It should be mitigated first before any new diversion projects can even be considered. The stream management plan makes several recommendations for restoration that should be implemented. The plan indicates that even more impacts will be recognized thru study of additional watershed segments. It is essential that the Stream Management Plan be incorporated in the assessment of any new diversion proposals. Denver Water and Northern Colorado Water must take responsibility for the damage they have already done instead of being allowed to cause more.</p> <p>This project seeks to firm water rights that are conditional. Nobody has the right to take this water if the impacts of diversion cannot be mitigated. The Colorado River watershed is one of the most important natural hydrologic systems in North America and the world. Grand Lake is arguably the highest value body of water in Colorado. The environmental impacts to them from this incremental diversion proposal cannot, in reality, be mitigated.</p>	<p>Comment #1069-3 (ID 2053): The project analysis fails to consider the inevitable consequences of climate change, which will exacerbate the impacts.</p> <p>Response #1069-3: The DEIS addressed climate change in Section 5.4 and described the impacts of expected yield of the Moffat Collection System related to earlier and more concentrated spring runoff:</p> <p>"Many scientific studies have predicted an increase in temperatures, resulting in changes in the composition of winter precipitation and the timing of spring snowmelt. In other words, as temperatures rise the West could receive more winter precipitation in the form of rain versus snow and the snow that does accumulate would melt earlier in the spring than in past years. In Colorado, the onset of stream flows from melting snow has shifted earlier by two weeks between 1978 and 2004 and the timing of runoff is projected to shift earlier in the spring (Western Water Assessment 2008). If this were to occur, it is likely that the yield of the Moffat Collection System would decrease due to existing capacity constraints. The Moffat Collection System canals and tunnels are only capable of transporting a certain amount of water before reaching hydraulic limitations. Additionally, South Boulder Creek is only capable of transporting approximately 1,200 cfs at Pinecliffe before flooding concerns arise. If runoff were to occur in a condensed timeframe, it is likely that hydrological limitations in the Moffat Collection System could decrease Denver Water's yield. Furthermore, a condensed timeframe for runoff would likely mean a reduction in the number of days Denver Water's water rights is in priority to divert water. This could result in Denver Water building additional replacement sources to ensure an adequate supply of water for its customers."</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">4</p> <p><i>As a society, we cannot tolerate further degradation. We have to look beyond the economics of east slope growth, to the wider and more important vision of regional landscape viability and sustainability.</i></p> <p style="text-align: right;"><i>Respectfully, Ray Miller</i></p>	<p>Although there is valid concern in the scientific community that global climate change may affect future water supplies in Colorado, there is little quantitative or even qualitative data with which to accurately predict or portray these changes, and consequently with which to integrate reasonably predictable cumulative effects of the proposed actions. The 2008 Western Water Assessment report prepared for the Colorado Water Conservation Board (CWCB), Climate Change in Colorado, indicates that, "In all parts of Colorado, no consistent long-term trends in annual precipitation have been detected. Variability is high, which makes detection of trends difficult. Climate model projections do not agree whether annual mean precipitation would increase or decrease in Colorado by 2050. The multi-model average projection shows little change in annual mean precipitation." The 2009 U.S. Geological Survey (USGS) Circular 1331, Climate Change and Water Resources Management: A Federal Perspective, indicates that climate change has the potential to affect many sectors in which water resource managers play an active role, including water availability. The study concedes two pertinent points: (1) the best available scientific evidence based on observations from long-term monitoring networks indicates that climate change is occurring, although the effects differ regionally; and (2) climate change could affect all sectors of water resources management, since it may require changed design and operational assumptions about resource supplies, system demands or performance requirements, and operational constraints. These studies reflect general trends that there is concern regarding the effect of climate change on the proposed actions, however the absence of quantified climate-induced decreases in flows related to the proposed actions makes it impossible to evaluate the changes with more than a speculative quality. Climate change is</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>an evolving science, as such the Corps updated the FEIS (Section 4.4) with more recent technical documentation, including the joint Corps-U.S. Department of the Interior, Bureau of Reclamation (Reclamation) planning document titled Addressing Climate Change in Long-Term Water Resources Planning and Management: User Needs for Improving Tools and Information (Brekke 2011).</p> <p>The concept of systematic interdisciplinary approach to cumulative effects is central to NEPA analysis, but is only defined in very general terms. Accordingly, the Act relies on the Federal agencies to establish their own methods and procedures within the framework of the regulatory requirements. Therefore, the Corps as the lead Federal Agency of the Moffat Project EIS believes the analysis is adequate.</p> <p>Comment #1069-4 (ID 2052): <i>The time has come that we recognize and acknowledge that any new diversion schemes are environmentally, ecologically, culturally, economically and morally wrong. Antiquated, irrational laws that give east slope communities political power to force their will upon west slope ecosystems must be redressed. That process needs to begin now. The east slope must resolve its water issues on its own turf thru a fundamental change in its lifestyle and cultural paradigm. There is vast opportunity to reduce consumption and waste that must be implemented in lieu of additional diversion.</i></p> <p>Response #1069-4: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1069-5 (ID 2051): <i>Denver Water and Northern Colorado Water are already taking more than 60% of the flow from this</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>watershed. Both entities are proposing simultaneous projects to increase their diversions by 20% each. That adds up to an irrational and unacceptable level. It is essential that these projects be evaluated for their cumulative impact. Failure to do so is irrational.</i></p> <p>Response #1069-5: The DEIS includes the Windy Gap Firming Project (WGFP) as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes.</p> <p>Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the Colorado-Big Thompson (C-BT) Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1069-6 (ID 2050): <i>Grand County has commissioned a comprehensive stream management plan based on good science.</i></p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>This plan documents that the watershed has already suffered serious degradation from existing diversion. The draft environmental impact statements for these projects make no recommendations for mitigation of the serious degradation that has already accumulated. It should be mitigated first before any new diversion projects can even be considered. The stream management plan makes several recommendations for restoration that should be implemented. The plan indicates that even more impacts will be recognized thru study of additional watershed segments. It is essential that the Stream Management Plan be incorporated in the assessment of any new diversion proposals. Denver Water and Northern Colorado Water must take responsibility for the damage they have already done instead of being allowed to cause more.</i></p> <p>Response #1069-6: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required, including Adaptive Management for mitigation.</p> <p>Denver Water, in collaboration with the Municipal Subdistrict Northern Colorado Water Conservancy District (NCWCD), developed a voluntary Fish and Wildlife Enhancement Plan to improve the existing aquatic habitat in approximately 14 miles of the upper Colorado River from Windy Gap to the Kemp-</p>




Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Breeze State Wildlife Area (SWA). The Fish and Wildlife Enhancement Plan would be implemented through an Intergovernmental Agreement (IGA) with Colorado Parks and Wildlife (CPW) (formerly Colorado Division of Wildlife) (see FEIS Section 4.3.1 and Appendix M). Denver Water also committed to a future stream restoration project in Grand County through the cooperative effort called Learning by Doing (LBD) as part of the Colorado River Cooperative Agreement (CRCA) (see FEIS Section 4.3.1 and Appendix M). These plans and agreements would be considered in the Corps Section 404 Permit decision.</p> <p>Comment #1069-7 (ID 2049): <i>This project seeks to firm water rights that are conditional. Nobody has the right to take this water if the impacts of diversion cannot be mitigated. The Colorado River watershed is one of the most important natural hydrologic systems in North America and the world. Grand Lake is arguably the highest value body of water in Colorado. The environmental impacts to them from this incremental diversion proposal cannot, in reality, be mitigated.</i></p> <p>Response #1069-7: Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p> <p>Comment #1069-8 (ID 2048): <i>As a society, we cannot tolerate further degradation. We have to look beyond the economics of east slope growth, to the wider and more important vision of regional landscape viability and sustainability.</i></p> <p>Response #1069-8: The Corps notes the comment.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1072 Anne Pilkington</p>	<p style="text-align: right;">2/13/10</p>  <p>Dear Mr. Franklin,</p> <p>I am writing to ask you to please do your best to preserve the water in the Fraser River in Grand County. Drying this beautiful area up would be a crying shame. The pine trees are already dead there. We have to do our best to preserve what we still have.</p> <p>I am a Denver resident. The people of Denver just need to understand simple water conservation at their properties. Public service ads need to be run on T.V. Run with the caliber of a Hickenlooper ad, these ads would be quite effective.</p> <p>Thank you so much for your time and attention.</p> <p style="text-align: right;">Sincerely, Anne Pilkington</p> <div style="background-color: black; width: 150px; height: 40px; margin-left: auto; margin-right: auto;"></div>	<p>Comment #1072-1 (ID 2063): <i>I am writing to ask you to please do your best to preserve the water in the Fraser River in Grand County. Drying this beautiful area up would be a crying shame. The pine trees are already dead there. We have to do our best to preserve what we still have.</i></p> <p>Response #1072-1: The Corps notes the comment.</p> <p>Comment #1072-2 (ID 2062): <i>I am a Denver resident. The people of Denver just need to understand simple water conservation at their properties. Public service ads need to be run on T.V. Run with the caliber of a Hickenlooper ad, these ads would be quite effective.</i></p> <p>Response #1072-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1074 Glenda Ready</p>	<div style="text-align: center;">  </div> <p>February 19, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin,</p> <p>I am writing this letter to express my concern about the proposed Moffat FIRMing Project. I have been a resident of the Fraser Valley for forty years and have witnessed the declining clarity of Grand Lake and the diminishing Fraser River. An 80% diversion of the Fraser River to the Front Range for watering Denver lawns in an arid environment is unthinkable in my opinion. The Fraser River is part of a complex waterway system in Grand County and all of the water will be affected by this diversion. Finally, in 2005, the Fraser River was declared the third most endangered river in the United States. Why would you consider issuing a permit to devastate the water system of Grand County?</p> <p>It has been proven in other parts of the West that an aggressive conservation program works and would eliminate the purpose and need for the Moffat FIRMing Project. Your responsibility is to the environment and to future generations. Please do not issue a permit that would allow the Fraser River system to fail for such unnecessary reasons.</p> <p>Doesn't anyone realize that Grand County and Denver Water are partners in this sharing of the Fraser River? If we let this river system fail, everyone will suffer including Denver! Please think about the future and not just immediate superficial needs.</p> <p>Sincerely,  Glenda Ready Citizen of Grand County </p>	<p>Comment #1074-1 (ID 2101): <i>I am writing this letter to express my concern about the proposed Moffat FIRMing Project. I have been a resident of the Fraser Valley for forty years and have witnessed the declining clarity of Grand Lake and the diminishing Fraser River. An 80% diversion of the Fraser River to the Front Range for watering Denver lawns in an arid environment is unthinkable in my opinion. The Fraser River is part of a complex waterway system in Grand County and all of the water will be affected by this diversion. Finally, in 2005, the Fraser River was declared the third most endangered river in the United States. Why would you consider issuing a permit to devastate the water system of Grand County?</i></p> <p>Response #1074-1: DEIS Section 3.1 presents information that demonstrates the hydrologic effects of upstream transbasin diversions and increased water use over time in the upper Fraser River Basin and along the Colorado River mainstem at Windy Gap. DEIS Table 3.1-10 summarizes the effects of historical Moffat Collection System diversions on native flow at the Fraser River at Winter Park gage. On average, Denver Water diverted approximately 50% of the average annual native flow at the Fraser River at Winter Park gage for the 30-year period from 1975 through 2004. The percentage of native flow diverted by Denver Water depends on the location in the basin. Denver Water would divert over 90% of the native flow with the Moffat Project on-line from some small tributaries that do not have bypass flow requirements. Denver Water would divert about 76% of the native flow at the Winter Park gage with the Moffat Project on-line. At the Granby gage located near the mouth of the Fraser River, Denver Water's average annual Moffat Collection System diversions represent approximately 41% of the native flow. Tables showing the percentage of native flow diverted by Denver Water under Current Conditions,</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Full Use of the Existing System and the proposed Moffat Project flow were added to FEIS Appendix H.</p> <p>Flow related changes that have occurred in the Fraser River Basin since 1935 are due in part to Denver Water's existing Moffat Collection System diversions, however, these impacts are attributable to past and present operations of that system, not the proposed Moffat Project. Under the proposed Moffat Project, additional diversions through the Moffat Tunnel would occur primarily during runoff months in May, June and July (see Table H-3.1 in DEIS Appendix H). The environmental effects of additional diversions attributable to the Moffat Project were evaluated and determined to be minimal to moderate depending on the resource. Additional water quality analyses were performed for the Fraser River and the Three Lakes area. See FEIS Sections 4.6.2 and 5.2.</p> <p>Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, that portion of the comment is simply noted.</p> <p>Comment #1074-2 (ID 2100): <i>It has been proven in other parts of the West that an aggressive conservation program works and would eliminate the purpose and need for the Moffat Firming Project. Your responsibility is to the environment and to future generations. Please do not issue a permit that would allow the Fraser River system to fail for such unnecessary reasons.</i></p>

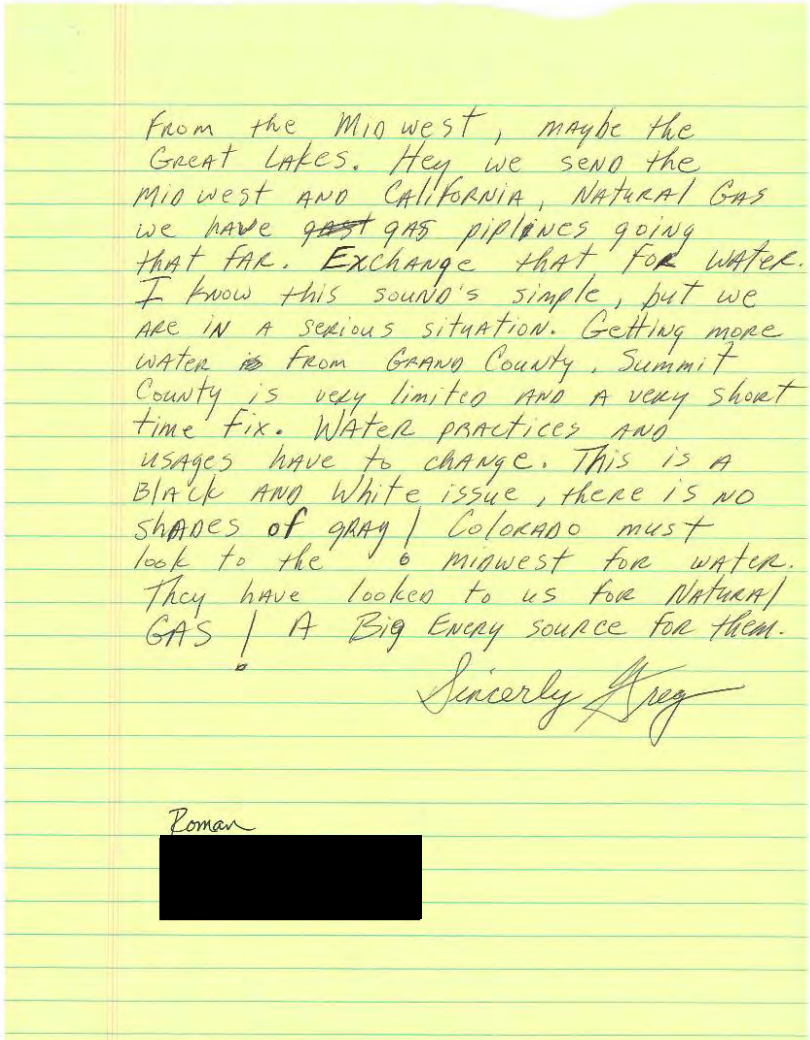
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1074-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project.</p> <p>It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1074-3 (ID 2099): <i>Doesn't anyone realize that Grand County and Denver Water are partners in this sharing of the Fraser River? If we let this river system fail, everyone will suffer including Denver! Please think about the future and not just immediate superficial needs.</i></p> <p>Response #1074-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1075 Greg Roman</p>	<p style="text-align: right;">2-26-10</p> <p style="text-align: center;">To whom it concerns</p> <p>The west's most precious resource is water. Everyone who has traveled our great interstate system, either on I-80 or I-70 and heads east out of Colorado to the Midwest. We visually see a huge difference beginning somewhere around the 98°W Longitude. The precipitation begins to increase, the landscape becomes greener. The early settlers heading west new this in the 19th century.</p> <p>In the past 30+ years we have seen population shifts East to West. Especially in CO. AR. NEVADA, where water is scarce. Most of these people have brought their water practices and usages with them. Eastern and mid western water practices and usages cannot be duplicated out west. Yet that is what has happened. Until this reverses we will never settle the water problem. The lower River Basin States need to look to the Northwest for water AND the Pacific Ocean. The upper River Basin States, especially the Front Range need to get water</p>	<p>Comment #1075-1 (ID 2253): The west's most precious resource is water. Everyone who has traveled our great interstate system, either on I-80 or I-70 and heads east out of Colorado to the Midwest. We visually see a huge difference beginning somewhere around the 98°W Longitude. The precipitation begins to increase, the landscape becomes greener. The early settlers heading west new this in the 19th century.</p> <p>Response #1075-1: The Corps notes the comment.</p> <p>Comment #1075-2 (ID 2252): In the past 30+ years we have seen population shifts east to west. Especially in CO, AR, Nevada, where water is scarce. Most of these people have brought their water practices and usages with them. Eastern and midwestern water practices and usages cannot be duplicated out west. Yet that is what has happened. Until this reverses we will never settle the water problem. The lower River Basin States need to look to the Northwest for water and the Pacific Ocean. The upper River Basin States, especially the Front Range need to get water from the Midwest, maybe the Great Lakes. Hey we send the Midwest and California, natural gas. We have gas pipelines going that far. Exchange that for water. I know this sound's simple, but we are in a serious situation. Getting more water from Grand County, Summit County is very limited and a very short time fix. Water practices and usages have to change. This is a black and white issue, there is no shades of gray! Colorado must look to the Midwest for water. They have looked to us for natural gas! A big energy source for them.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	 <p>From the Midwest, maybe the Great Lakes. Hey we send the Midwest AND California, Natural Gas we have gas gas pipelines going that far. Exchange that for water. I know this sounds simple, but we are in a serious situation. Getting more water is from Grand County, Summit County is very limited and a very short time fix. Water practices and usages have to change. This is a Black and White issue, there is no shades of gray Colorado must look to the ⁶ midwest for water. They have looked to us for Natural GAS A Big Energy source for them.</p> <p style="text-align: right;">Sincerely Greg</p> <p>Roman [REDACTED]</p>	<p>Response #1075-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

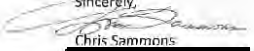

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1076 Chris Sammons</p>	<p>February 22, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>To Whom It May Concern,</p> <p>The [REDACTED] has been in continuous operation in Kremmling along the Colorado River for over 100 years. I am the 4th generation, and hope that my kids will carry on the tradition for many more. There are many variables in the ranching industry which can dramatically affect the outcome/success of any operation; weather, cattle prices, labor costs etc. However, the single biggest factor this ranch has faced over the past 100 years is the loss of water in the Colorado River through trans-basin diversion. I grew up listening to the "old timers" predict that the end of ranching in Middle Park was inevitable because of the insatiable thirst of the front range, and THEY WERE RIGHT!</p> <p>It doesn't take a masters degree in ecology to recognize the irreversible damage that the systematic siphoning of the Fraser and Colorado River headwaters has done to Grand County, Middle Park, and indeed the whole of the Colorado Basin in the state. Entire ecosystems have been destroyed; can anyone say natural wetlands, Whirling Disease, stone fly or Leopard frog? Has anyone noticed that all of the native willow and cottonwood species are dying out and being replaced with aggressive non-native species? Has anyone noticed that the once icy cold fast flowing rivers are now sluggish warm streams full of moss? We ranchers sure have!</p> <p>In the beginning we used the natural spring flood and gravity to irrigate our hay meadows. Then after "The Big Thompson" we had to use pumps to get our water, and the reduced flows caused the water table to begin to drop. After "Windy Gap" we had to use bigger pumps, and redo our diversion structures. The water table is even lower, we pump day and night and the water never builds up like it used to. The moss in the river clogs our pumps and causes them to shut off, requiring constant vigilance. We never get the higher ground wet anymore, there just isn't enough water left in this Basin.</p> <p>BUT THANK GOD THE GREATER DENVER AREA IS STILL LUSH, GREEN AND WELL WATERED!</p> <p>In my opinion, there is no way that the damage these rivers have sustained can be abated, mitigated, nor, dare I say reversed, short of allowing them to return to their natural "wild" state, and we all know that isn't going to happen. Therefore, I say (as I said for Windy Gap),</p> <p style="text-align: center;">"NOT ONE MORE DROP!"</p>	<p>Comment #1076-1 (ID 2121): <i>The [REDACTED] has been in continuous operation in Kremmling along the Colorado River for over 100 years. I am the 4th generation, and hope that my kids will carry on the tradition for many more. There are many variables in the ranching industry which can dramatically affect the outcome/success of any operation; weather, cattle prices, labor costs etc. However, the single biggest factor this ranch has faced over the past 100 years is the loss of water in the Colorado River through trans-basin diversion. I grew up listening to the "old timers" predict that the end of ranching in Middle Park was inevitable because of the insatiable thirst of the front range, and THEY WERE RIGHT!</i></p> <p>Response #1076-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1076-2 (ID 2120): <i>It doesn't take a masters degree in ecology to recognize the irreversible damage that the systematic siphoning of the Fraser and Colorado River headwaters has done to Grand County, Middle Park, and indeed the whole of the Colorado Basin in the state. Entire ecosystems have been destroyed; can anyone say natural wetlands, Whirling Disease, stone fly or Leopard frog? Has anyone noticed that all of the native willow and cottonwood species are dying out and being replaced with aggressive non-native species? Has anyone noticed that the once icy cold fast flowing rivers are now sluggish warm streams full of moss? We ranchers sure have!</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>The questions I want answered today are:</p> <ol style="list-style-type: none"> 1. The area from the headwaters of the Fraser River to the mouth of the Gore Canyon west of Kremmling; what are the specific plans to mitigate and replace, WITHIN THAT 50 MILE STREATCH, water lost to diversion? 2. More water diverted will mean lower water levels leaving my irigation system high and dry. Who will replace or rebuild my existing irrigation pumps, pipes, structures and ditches to accommodate these inevitable low flows? 3. Systemic low flows have reduced the water table in our hay meadows causing death and extinction of native trees, willows and grasses. This has resulted in an explosion of invasive weed species. Who will remove the dead trees and willows, replace them, and help me control the invasive weeds? 4. Diversion projects have caused the total loss of the historic annual spring runoff "flush". The result is increasing alkaline soil levels, a depleted water table, and a total loss of most historic natural wetlands. Who/what will restore the wetlands? Who/what will mitigate the soil so we can maintain a productive agricultural community? 5. Most private property owners along these rivers derive some income from trout fishing opportunities. Low flows, and water temperature/quality issues are devastating to fish and fishermen alike. Who will save the fish? Where/who will provide the same quality experience for the fisherman? Who will replace the lost income for the private property owner? Who/what will replace and compensate local business for the loss of fishing related income? 6. The towns of Fraser, Tabernash, Granby, Hot Sulphur Springs and Kremmling all get drinking water from the Fraser/Colorado Rivers. Who will pay to mitigate and maintain the inevitable long term drinking water quality issues for these municipalities? 7. A further dewatered Fraser River will be pumped by the Northern Colorado Water Conservancy District through Grand Lake, carrying a significantly higher concentration of run-off nutrients, increasing algae counts, diminishing water clarity, and endangering the viability of this valuable eco-tourism region. In addition to tangible detriments, what mitigation will be included in the Permit to compensate for non-tangible quality of life/enjoyment/business questions this community will face? 8. The entire 34,000 acre feet intended to be developed by the Moffat Firing Project could be realized by a 10% conservation effort by customers of Denver Water. Why hasn't Denver Water implemented and enforced an aggressive conservation program with the intent to eliminate the need for further trans-basin diversion? 9. Grand County has in place a Stream Management Plan. If this project is approved, will the Plan be incorporated in the Permit as an integral tool to establish efficient mitigation? 10. If the Permit is issued, and the impacts prove to be underestimated or the prescribed mitigation measures prove inadequate to maintain the health of Grand County 	<p>Response #1076-2: Flow changes and diversions with a Project alternative and the potential impacts to fish habitat and fish populations were discussed in FEIS Section 5.11. Mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>Comment #1076-3 (ID 2119): <i>In the beginning we used the natural spring flood and gravity to irrigate our hay meadows. Then after "The Big Thompson" we had to use pumps to get our water, and the reduced flows caused the water table to begin to drop. After "Windy Gap" we had to use bigger pumps, and redo our diversion structures. The water table is even lower, we pump day and night and the water never builds up like it used to. The moss in the river clogs our pumps and causes them to shut off, requiring constant vigilance. We never get the higher ground wet anymore, there just isn't enough water left in this Basin. BUT THANK GOD THE GREATER DENVER AREA IS STILL LUSH, GREEN AND WELL WATERED! In my opinion, there is no way that the damage these rivers have sustained can be abated, mitigated, nor, dare I say reversed, short of allowing them to return the their natural "wild" state, and we all know that isn't going to happen. Therefore, I say (as I said for Windy Gap), "NOT ONE MORE DROP!"</i></p> <p>Response #1076-3: The Corps notes the comment.</p> <p>Comment #1076-4 (ID 2118): <i>The questions I want answered today are: 1. The area from the headwaters of the Fraser River to the mouth of the Gore Canyon west of Kremmling; what are the specific plans to mitigate and replace, WITHIN THAT 50 MILE STRETCH, water lost to diversion?</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>waterways, its citizens, and its businesses, we in Grand County are screwed. Will the Permit contain an ironclad "midcourse correction" mechanism?</p> <p>11. Senate Document no. 80 which was presented in 1937 as part of the Colorado-Big Thompson Project set a precedence for planned trans-basin diversions. Specifically, this document instructs the Secretary of the Interior to protect and preserve downstream interests, and outlines certain duties and powers the Secretary <u>must</u> exercise. If issued, will the Permit honor Congress' established guidelines and intent?</p> <p>12. Denver Water has conditional water rights in the Fraser River. With 60% of the Fraser River already being diverted to the front range, who in their right mind would say "conditions" are such to allow further diversions?</p> <p>Sincerely,  Chris Sammons </p>	<p>Response #1076-4: FEIS Appendix M contains a Conceptual Mitigation Plan proposed by Denver Water to mitigate Project-related impacts identified in the EIS. The Corps will determine if the proposed mitigation would offset identified impacts. The final mitigation measures will be specified by the Corps as Section 404 Permit conditions, if a permit is issued.</p> <p>As described in FEIS Section 4.3.1, Denver Water and Northern Water have cooperatively developed an enhancement plan for the Colorado River from Windy Gap to the confluence of the Williams Fork River (see FEIS Appendix M). This plan includes money and resources to improve stream habitat.</p> <p>Comment #1076-5 (ID 2117): <i>The questions I want answered today are: 2. More water diverted will mean lower water levels leaving my irrigation system high and dry. Who will replace or rebuild my existing irrigation pumps, pipes, structures and ditches to accommodate these inevitable low flows?</i></p> <p>Response #1076-5: Additional Moffat Tunnel diversions would occur in average and wet years and would be concentrated during the runoff months in May, June and July. Damage to West Slope irrigation infrastructure is not anticipated since flows in dry years would not occur under the Moffat Project.</p> <p>Comment #1076-6 (ID 2116): <i>The questions I want answered today are: 3. Systemic low flows have reduced the water table in our hay meadows causing death and extinction of native trees, willows and grasses. This has resulted in an explosion of invasive weed species. Who will remove the dead trees and willows, replace them, and help me control the invasive weeds?</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1076-6: Information provided in the DEIS indicates there would be, at most, very small changes in the water table (groundwater level) directly beneath potentially affected stream segments in the Project area. The amount of the water table changes would be similar to but less than the changes in stream levels caused by the Moffat Project. Monitoring well data collected by the USGS from several wells in the Fraser River Valley show that groundwater levels have not declined, but rather, have increased since 1996. The largest changes in stream levels attributable to the Project would be very small, and would be in the upper parts of the Fraser River and the upper part of the Williams Fork watersheds directly downstream of the existing diversion structures. Further downstream along the Colorado River, changes in stream levels due to the Project would be even smaller.</p> <p>FEIS Section 5.8.1.2 includes an expanded evaluation of the effects of changes in stream flows, including peak flows, on riparian and wetland areas. In general, new analysis conducted by the Corps in the fall of 2010 concluded that the riparian zones in the Project area are mostly supported by groundwater hydrology; thus, diverting peak flows in wet and average years would have negligible to minor effects on these habitats.</p> <p>Comment #1076-7 (ID 2115): <i>The questions I want answered today are: 4. Diversion projects have caused the total loss of the historic annual spring runoff "flush". The result is increasing alkaline soil levels, a depleted water table, and a total loss of most historic natural wetlands. Who/what will restore the wetlands? Who/what will mitigate the soil so we can maintain a productive agricultural community?</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1076-7: Please see the response to Comment Identification (ID) 2116. The Moffat Project is not anticipated to affect soil chemistry.</p> <p>Comment #1076-8 (ID 2114): <i>The questions I want answered today are: 5. Most private property owners along these rivers derive some income from trout fishing opportunities. Low flows, and water temperature/quality issues are devastating to fish and fishermen alike. Who will save the fish? Where/who will provide the same quality experience for the fisherman? Who will replace the lost income for the private property owner? Who/what will replace and compensate local business for the loss of fishing related income?</i></p> <p>Response #1076-8: The socioeconomic impact analysis takes into account the conclusions of a number of other resources, including surface water, recreation, visual resources, aquatic biological resources and others. The evaluation of socioeconomic impacts to Grand County in DEIS Section 4.17 considered these conclusions in assessing Project impacts on tourism and related sectors. The analysis of socioeconomic impacts to Grand County was reviewed and expanded as appropriate in FEIS Section 5.19.</p> <p>Comment #1076-9 (ID 2113): <i>The questions I want answered today are: 6. The towns of Fraser, Tabernash, Granby, Hot Sulphur Springs and Kremmling all get drinking water from the Fraser/Colorado Rivers. Who will pay to mitigate and maintain the inevitable long term drinking water quality issues for these municipalities?</i></p> <p>Response #1076-9: Additional water quality analysis has been performed on the Fraser River. Please refer to FEIS</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Sections 4.6.2 and 5.2. The Project would not compromise the operation or effectiveness of the Current Conditions water treatment in the towns of Fraser, Tabernash, Granby, Hot Sulphur Springs, and Kremmling.</p> <p>Comment #1076-10 (ID 2112): <i>The questions I want answered today are: 7. A further dewatered Fraser River will be pumped by the Northern Colorado Water Conservancy District through Grand Lake, carrying a significantly higher concentration of run-off nutrients, increasing algae counts, diminishing water clarity, and endangering the viability of this valuable eco-tourism region. In addition to tangible detriments, what mitigation will be included in the Permit to compensate for non-tangible quality of life/enjoyment/business questions this community will face?</i></p> <p>Response #1076-10: Additional water quality analyses have been performed on the Fraser River and the Three Lakes area, including additional nutrients analysis. Refer to FEIS Sections 4.6.2 and 5.2. Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit. Additionally, the modeling completed by Northern Water for the Windy Gap EIS included depletions caused by the proposed Moffat Project.</p> <p>Comment #1076-11 (ID 2111): <i>The questions I want answered today are: 8. The entire 34,000 acre feet intended to be developed by the Moffat Firing Project could be realized by a 10% conservation effort by customers of Denver Water. Why hasn't Denver Water implemented and enforced an aggressive conservation program with the intent to eliminate the need for further trans-basin diversion?</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1076-11: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Comment #1076-12 (ID 2110): <i>The questions I want answered today are: 9. Grand County has in place a Stream Management Plan. If this project is approved, will the Plan be incorporated in the Permit as an integral tool to</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>establish efficient mitigation?</i></p> <p>Response #1076-12: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11, and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required, including Adaptive Management for mitigation.</p> <p>Comment #1076-13 (ID 2109): <i>The questions I want answered today are: 10. If the Permit is issued, and the impacts prove to be underestimated or the prescribed mitigation measures prove inadequate to maintain the health of Grand County waterways, its citizens, and its businesses, we in Grand County are screwed! Will the Permit contain an ironclad "midcourse correction" mechanism?</i></p> <p>Response #1076-13: Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>Comment #1076-14 (ID 2108): <i>The questions I want answered today are: 11. Senate Document no. 80 which was presented in 1937 as part of the Colorado-Big Thompson Project set a precedence for planned trans-basin diversions.</i></p>

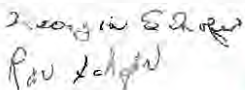

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>Specifically, this document instructs the Secretary of the Interior to protect and preserve downstream interests, and outlines certain duties and powers the Secretary must exercise. If issued, will the Permit honor Congress' established guidelines and intent?</i></p> <p>Response #1076-14: Several water rights that pump water from the Colorado River water between the confluence with the Williams Fork River and the Kremmling gage were granted senior status in relation to C-BT Project water rights per Senate Document 80. While these rights were granted senior status with respect to the C-BT Project, they are operated in strict priority in relation to Denver Water's water rights. The physical ability for some of these water rights to pump water from the Colorado River can be limited during dry years and late in the summer when flows in the Colorado River are low. The proposed Moffat Project would not affect low flows because there would be no additional diversions in dry years due to the Moffat Project. In dry years and late in the summer, Denver Water already diverts the maximum amount physically and legally available under its existing water rights and infrastructure without additional storage in its system, in which case, there would be no further reduction in low flows due to the proposed Moffat Project. In addition, Denver Water's out-of-priority diversions from the Fraser River Basin would be replaced with releases from Williams Fork Reservoir, resulting in no change in Colorado River flows below the confluence with the Williams Fork River due to Denver Water's out-of-priority diversions. In summary, there would be little to no impact on the ability of these water rights to pump from the Colorado River due to the proposed Moffat Project.</p> <p>Comment #1076-15 (ID 2107): <i>The questions I want answered today are: 12. Denver Water has conditional water rights in the</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>Fraser River. With 60% of the Fraser River already being diverted to the front range, who in their right mind would say "conditions" are such to allow further diversions?</i></p> <p>Response #1076-15: Denver Water's conditional water rights on the Fraser River are decreed and administered in accordance with Colorado water right laws. Under Colorado Revised Statute (C.R.S.) 37-92-301 a conditional water right is made absolute when there is a finding of reasonable diligence by the owner of the water right. The Corps' EIS is a public agency decision-making document that discloses the environmental effects of a proposed project (i.e., the "conditions"). These are two separate standards of review by two separate agencies. The commenter's concern about the conditions of the Fraser River and the impacts of additional diversions from the Moffat Project is addressed in Chapters 3, 4, and 5 of the EIS. The Corps does not administer water rights. For the proposed Project, the State Engineer's Office (SEO) would administer water rights.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1077 Georgia and Ronald Schafer</p>	<p>U. S. Army Corps of Engineers Attn. Scott Franklin 9307 S. Wadsworth Blvd. Littleton, Co.</p> <p>RE: Gross Dam Reservoir</p> <p>We are writing you again about the Moffat Collection System Project #2035.</p> <p>We are asking you to reconsider your approval for this project.</p> <p>We attended a meeting on Feb. 23 with a presentation by the DWB. We were told by the DWB that any safety, health or presentations by the citizens involved in this region would not be considered by the board. The only way we can present our reasons for denial for this project is through your office.</p> <p>We asked for a Hydrology Study in this area on the Fault line and damage to the aquifers, wells in the region. We told by the engineer on the project that the dam would be built to withstand an earthquake. He did not address the damage to homes, people's lives and aquifers and wells. It was like the people in the area did not exist. When the safety of people on the roads Co.93, Co72 and Gross Dam Roads came up there were no answers for the questions. When the health of the people in the area from dust and noise there were no answers for the questions it was like we did not matter.</p> <p>Congressman Polis sent a representative to the meeting. His office has study the DEIS and his office felt it was so flawed it was a joke</p> <p>The DWB has spent over 7 million dollars buying out protest from some of the communities involved in this project. They have offered to build a community center in our area. Fraud!</p> <p>Please do not support this project. We are requesting that a Hydrology Study is done in this area.. There are 4 other sites they can use for this water expansion.</p> <p>Thank you for your time.</p> <p>Georgia and Ronald Schafer</p>  	<p>Comment #1077-6 (ID 2128): <i>We are writing you again about the Moffat Collection System Project #2035. We are asking you to reconsider your approval for this project.</i></p> <p>Response #1077-6: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1077-3 (ID 2127): <i>We attended a meeting on Feb. 23 with a presentation by the DWB. We were told by the DWR that any safety, health or presentations by the citizens involved in this region would not be considered by the board. The only way we can present our reasons for denial for this project is through your office.</i></p> <p>Response #1077-3: The Corps is the lead Federal agency preparing the EIS. It is the Corps' responsibility to respond to comments on its document, not Denver Water's responsibility. The Corps will decide whether to issue a Section 404 Permit and will consider all comments received.</p> <p>Comment #1077-5 (ID 2126): <i>We asked for a Hydrology Study in this area on the Fault line and damage to the aquifers, wells in the region. We told by the engineer on the project that the dam would be built to withstand an earthquake. He did not address the damage to homes, people's lives and aquifers and wells. It was like the people in the area did not exist. When the safety of people on the roads Co. 93, Co 72 and Gross Dam Roads came up there were no answers for the questions. When the health of the people in the area from dust and noise there were no answers for the questions it was like we did not matter.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1077-5: Seismic Activity Section 4.3.1.1 of the DEIS states: "In summary, the proposed dam raise and expansion of Gross Reservoir may increase the potential for reservoir-induced seismicity, but not at substantial levels. Potential issues related to geologic resources will be addressed through geotechnical and seismic studies in the design and construction phases." Additionally, Table 4.20-1 states "Dam raise and expansion may slightly increase the potential for reservoir-induced seismicity." Detailed geotechnical and seismic studies would be conducted as part of the final design and construction phases of the Project.</p> <p>The Livingston Sheer Zone and Fault, the Rogers Fault, and the Copeland Fault are not mapped as potentially active and therefore unlikely to create earthquake activity near Gross Reservoir (Kirkham and Rogers 1981). Faults that have been identified in the vicinity of the dam have been deemed inactive so there is little chance that the activation of these faults is possible.</p> <p>Blasting would occur when onsite aggregate quarries are in operation (approximately the first year of aggregate processing) and in the early phases of construction related to the dam foundation excavation. Typically the frequency of blasting is every 3 to 4 days due to the time it takes to drill the blast holes. Blasting would occur only during daylight hours, typically occurring at the end of the day shift. Safety precautions would be taken to keep unauthorized personnel away from blast areas. Blasts would be designed such that holes are appropriately spaced, loaded and stemmed to prevent air blast, excessive vibration and to limit any fly rock migrating outside of the blast zone. The blasting agent used would likely be Ammonium Nitrate Fuel Oil (ANFO), which when handled</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>appropriately is a relatively safe and stable product used in construction and quarrying operations throughout the United States (U.S.). The blast would be designed to produce relatively low vibrations (ground motions) and blasting adjacent to the dam would be controlled to prevent any damage to the dam or the existing foundation. All blasting would be designed and overseen by a Colorado-licensed Blasting Engineer. Blasting would be designed specifically for Gross Dam and would create ground vibrations and land motion appropriate for the dam structure to sustain. A seismograph would be used to monitor ground motions and air pressure (noise) vibrations produced from the blasting operations to ensure that acceleration thresholds are not exceeded. The land motion created from blasting dissipates rapidly from the source (i.e., the dam) and would be insufficient to collapse wells in the region.</p> <p>Construction Traffic Most of the roadways serving Gross Reservoir (e.g., State Highways [SHs] 72 and 93) are in good condition and are designed to handle large, heavy construction vehicles. However, Denver Water would improve other roads in the Project area to accommodate construction activities, if needed.</p> <p>Denver Water has met with the Colorado Department of Transportation (CDOT) to discuss optimum re-design of SH 72 to reduce construction traffic delays, improve turnouts for slow-moving traffic and to schedule construction traffic during off-peak periods. Various road segments within the Project boundary, such as areas near the dam, would be temporarily closed for safety reasons during construction.</p>



Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Denver Water would assure that construction contractors comply with local and State health and safety plans and codes. Denver Water also indicated they would have staff on-site during construction, and would hire a contractor to oversee construction activity, including safety compliance.</p> <p>Dust and Noise As discussed in FEIS Section 5.13.7, a land development construction permit would be required from the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD) prior to beginning the land clearing activities. The operating terms and conditions of a land development permit include a Fugitive Dust Control Plan to control emissions of particulate matter. This Plan would define specific control measures, such as those listed in FEIS Table 5.13-9, with which Denver Water and its contractors must comply throughout construction of the Project to minimize the release of fugitive dust.</p> <p>Denver Water would require construction equipment used by the contractors to function as designed and to conform to all applicable noise regulations.</p> <p>Comment #1077-1 (ID 2125): <i>Congressman Polis sent a representative to the meeting. His office has study the DEIS and his office felt it was so flawed it was a joke</i></p> <p>Response #1077-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1077-2 (ID 2124): <i>The DWB has spent over 7 million dollars buying out protest from some of the communities involved in this project. They have offered to build a community</i></p>

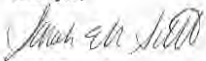
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>center in our area. Fraud!</i></p> <p>Response #1077-2: Denver Water has worked with several entities on the West Slope in a cooperative manner to address concerns of all parties. The CRCA is discussed in FEIS Section 4.3. The CRCA can also be found on Denver Water's website. Denver Water has not offered to build a community center in the Gross Reservoir area. Several "ideas" for mitigation have been suggested and Denver Water will consider all comments during the development of its mitigation plan. Please see FEIS Appendix M for Denver Water's Conceptual Mitigation Plan.</p> <p>Comment #1077-4 (ID 2123): <i>Please do not support this project. We are requesting that a Hydrology Study is done in this area.. There are 4 other sites they can use for this water expansion.</i></p> <p>Response #1077-4: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1080 Sarah Ellen Schill</p>	<div style="text-align: center;">  <p>Sarah Schill</p> </div> <div style="text-align: center;">  </div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadworth Blvd. Littleton, CO 80128</p> <p>23 February 2010</p> <p>Dear Mr. Franklin,</p> <p>As a concerned resident of Grand County, I am writing to comment on omissions in the Draft EIS for the Moffat Firing Project. I believe the project will have severe impacts that are not mitigated in the EIS, and these impacts must be addressed before further action can be taken.</p> <p>The Moffat Firing Project intends to develop 34,000 acre-feet, meaning a significant diversion of the Fraser River. Already, the Front Range takes 60% of the Fraser River, which has impacted the health of the river so severely that it was given the title of third most endangered river in the country in 2005. By conserving and recycling water, Denver could eliminate the need for the Project altogether.</p> <p>The Moffat Firing Project risks permanent damage to the Fraser River system by not guaranteeing adequate year-round baseline stream flows nor adequate flushing and chemical maintenance flows in the Fraser, Colorado, and Williams Fork rivers. Denver Water must be required to maintain baseline flows that will sustain all rivers at temperatures to be equal to or surpass state standards.</p> <p>Additionally, the EIS fails to fully recognize and mitigate for the combined effects of the Moffat Firing Project and the Windy Gap Firing Project on the Upper Colorado River in Grand County.</p> <p>A further diminished Fraser River pumped by the NCWCD through Grand Lake would carry a significantly higher concentration of run-off nutrients. This would increase algae counts, diminish water clarity (already water clarity in Grand Lake has dropped from 9+ meters to 3-meters in half a century), and generally endanger the economic viability of this tourist-dependent region.</p> <p>The Permit needs to incorporate the Grand County Stream Management Plan and use the numbers in the County Plan to determine impact and mitigation regulations of the Permit. In addition, there must be a mechanism of midcourse correction included in the Permit in the event that impacts are underestimated or that prescribed mitigations prove inadequate. Denver Water must be required to fund and maintain a comprehensive monitoring program to annually analyze water resource and ecosystem status, and to address mitigation corrections as they may be revealed by the annual comparative review.</p> <p>While the Preferred Alternative allows for mitigation, the No-Action Alternative, authorizing diversion of an additional 12% of the Fraser River, allows no mitigation. The Preferred Alternative should be requested only if comprehensive points of impact and mitigation are diligently incorporated in the Permit.</p>	<p>Comment #1080-1 (ID 2140): <i>As a concerned resident of Grand County, I am writing to comment on omissions in the Draft EIS for the Moffat Firing Project. I believe the project will have severe impacts that are not mitigated in the EIS, and these impacts must be addressed before further action can be taken.</i></p> <p>Response #1080-1: Please refer to Denver Water's Conceptual Mitigation Plan in FEIS Appendix M.</p> <p>Comment #1080-2 (ID 2139): <i>The Moffat Firing Project intends to develop 34,000 acre-feet, meaning a significant diversion of the Fraser River. Already, the Front Range takes 60% of the Fraser River, which has impacted the health of the river so severely that it was given the title of third most endangered river in the country in 2005. By conserving and recycling water, Denver could eliminate the need for the Project altogether.</i></p> <p>Response #1080-2: Water conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF) of the water supply shortfall</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">For the long-term health of the economics of both Grand County and Denver, the Fraser River must be protected. In the mountains, our tourist economy is dependent upon the health of our environment, specifically the Fraser and Colorado rivers. Denver needs to adopt a long-range growth plan that incorporates an understanding of the desert ecosystem and promotes water conservation and recycling above reckless water consumption. The City of Los Angeles recently developed a Water Supply Plan that will conserve or recycle 32.6 billion gallons of water through conservation and recycling, and Denver needs to adopt a similar forward-thinking strategy.</p> <p style="text-align: center;">Thank you,</p> <p style="text-align: center;"> Sarah Ellen Schill</p>	<p>identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in Table 1-2 of the DEIS and FEIS. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water has been encouraging their customers to use 22% less water than they were consuming before the 2002 drought, by 2016. To date, Denver Water customers are using 18% less water than they were before the 2002 drought.</p> <p>Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>Comment #1080-3 (ID 2138): <i>The Moffat Firming Project risks permanent damage to the Fraser River system by not guaranteeing adequate year-round baseline stream flows nor adequate flushing and chemical maintenance flows in the Fraser, Colorado, and Williams Fork rivers. Denver Water must be required to maintain baseline flows that will sustain all rivers at temperatures to be equal to or surpass state standards.</i></p> <p>Response #1080-3: FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>FEIS Appendix M presents the plan to provide compensatory mitigation for unavoidable adverse effects associated with the proposed Moffat Project. Mitigation with respect to water temperatures is as follows. Based on temperature monitoring by the Grand County Water Information Network (GCWIN) in 2007 and 2008, most of the monitoring results indicated that stream temperatures in the Fraser River Basin and upper Colorado River are within State regulatory standards. Temperatures exceeding the regulatory limit have occurred in the Fraser River and Ranch Creek in July and August. Reductions in stream flow associated with the Moffat Project during the summer months could contribute to higher water temperature on hot summer days. The DEIS identified negligible to moderate temperature impacts on the Fraser River and Ranch Creek. In addition, the Colorado River, between Windy Gap Reservoir and Kremmling, can have low flows in the late summer and experience elevated water temperatures on hot summer days. The DEIS identified negligible temperature impacts on this portion of the Colorado River associated with the Moffat Project. Denver Water would continue its participation in and support of GCWIN to monitor stream temperatures in the Fraser River Basin and Colorado River. In addition, Denver Water would work with the Municipal Subdistrict of the Northern Water Conservancy District to install and monitor two continuous real-time temperature monitoring stations on the Colorado River to be located at the Windy Gap stream gage and upstream of the Williams Fork River confluence. When specified temperature values are exceeded in August, Denver Water would forgo up to 250 AF of diversions from its Fraser River Collection System after August 1 by releasing 4 cfs if the Proposed</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Action of the Moffat Project is diverting. The 250 AF is an estimate of the amount of diversion caused by the Proposed Action during the month of August. Denver Water, the Municipal Subdistrict, and other stakeholders would work together to establish the specific temperature thresholds.</p> <p>Comment #1080-4 (ID 2137): <i>Additionally, the EIS fails to fully recognize and mitigate for the combined effects of the Moffat Firming Project and the Windy Gap Firming Project on the Upper Colorado River in Grand County.</i></p> <p>Response #1080-4: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>for a discussion of this analysis.</p> <p>Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p> <p>Comment #1080-5 (ID 2136): <i>A further diminished Fraser River pumped by the NCWCD through Grand Lake would carry a significantly higher concentration of run-off nutrients. This would increase algae counts, diminish water clarity (already water clarity in Grand Lake has dropped from 9+ meters to 3- meters in half a century), and generally endanger the economic viability of this tourist-dependent region.</i></p> <p>Response #1080-5: Additional water quality analysis has been performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1080-6 (ID 2135): <i>The Permit needs to incorporate the Grand County Stream Management Plan and use the numbers in the County Plan to determine impact and mitigation regulations of the Permit. In addition, there must be a mechanism of midcourse correction included in the Permit in the event that impacts are underestimated or that prescribed mitigations prove inadequate. Denver Water must be required to fund and maintain a comprehensive monitoring program to annually analyze water resource and ecosystem status, and to address mitigation corrections as they may be revealed by the annual comparative review.</i></p> <p>Response #1080-6: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11, and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required, including Adaptive Management for mitigation.</p> <p>Denver Water, in collaboration with the Municipal Subdistrict NCWCD, developed a voluntary Fish and Wildlife Enhancement Plan to improve the existing aquatic habitat in approximately 14 miles of the upper Colorado River from Windy Gap to the Kemp-Breeze SWA. The Fish and Wildlife Enhancement Plan would be implemented through an IGA with CPW (see FEIS Section 4.3.1 and Appendix M). Denver Water also committed to a future stream restoration project in Grand County through the cooperative effort called LBD as part of the CRCA (see FEIS Section 4.3.1 and Appendix M). Portions of these plans and agreements may be incorporated into the Section 404 Permit requirements by the Corps.</p> <p>Comment #1080-7 (ID 2134): <i>While the Preferred Alternative allows for mitigation, the NO-Action Alternative, authorizing diversion of an additional 12% of the Fraser River, allows no mitigation. The Preferred Alternative should be requested only if comprehensive points of impact and mitigation are diligently incorporated in the Permit.</i></p> <p>Response #1080-7: Denver Water's Conceptual Mitigation Plan is included in FEIS Appendix M. A mitigation plan will be submitted to the Corps by Denver Water for review by</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>the Corps prior to issuance of a Section 404 Permit. However, the final decision on the appropriate level of mitigation rests with the Corps. The mitigation plan will include the following information for each compensatory mitigation measure:</p> <ul style="list-style-type: none"> • Objectives – A description of the resources, the amount of affected resources, the amount of mitigation, and the method of compensation. • Site Selection – A description of the methods used to select a mitigation site and the proposed location of the mitigation site. • Baseline Information – A description and photograph of the existing conditions of the proposed mitigation site. • Mitigation Work Plan – Detailed specifications and work descriptions for the proposed mitigation, which will include as appropriate geographic boundaries of the mitigation site, construction methods, a grading plan, erosion control measures, revegetation and planting specifications, and schedule. • Maintenance Plan – A description and schedule of maintenance needed to ensure the mitigation is properly functioning. • Performance Standards – Standards and criteria used to determine if the mitigation project has been successfully implemented and is achieving the objectives. • Monitoring Requirements – A description of what will be monitored to determine if the performance criteria are met, and a schedule for monitoring and reporting. • Long-term Management Plan – A description of how the mitigation project will be managed after

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>the performance standards are met to ensure the long-term viability of the mitigation.</p> <ul style="list-style-type: none"> • Adaptive Management – A description of how unforeseen changes in site conditions, the inability to fully implement the proposed mitigation, or the inability to fully meet performance standards will be addressed. • Financial Assurances – A description of sufficient financial assurances to ensure a high level of confidence that the compensatory mitigation will be successfully completed. <p>Comment #1080-8 (ID 2133): <i>For the long-term health of the economies of both Grand County and Denver, the Fraser River must be protected. In the mountains, our tourist economy is dependent upon the health of our environment, specifically the Fraser and Colorado rivers. Denver needs to adopt a long-range growth plan that incorporates an understanding of the desert ecosystem and promotes water conservation and recycling above reckless water consumption. The City of Los Angeles recently developed a Water Supply Plan that will conserve or recycle 32.6 billion gallons of water through conservation and recycling, and Denver needs to adopt a similar forward-thinking strategy.</i></p> <p>Response #1080-8: As shown in Table 1-1 in FEIS Section 1.4.1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A (Supplemental Evaluation of Denver Water Demand Projections) and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water is in the process of completing a Recycling Project that will use reusable supplies to meet an annual demand of 17,500 AF. Denver Water is also in the process of constructing 30,000 AF of gravel pit reservoir storage downstream of Denver. The storage facilities would be used to manage reusable supplies by storing excess reusable supplies in time of surplus, and releasing the stored reusable supplies at times of shortage. The gravel pits would be used for the following purposes:</p> <ol style="list-style-type: none"> 1. Perform exchanges to upstream facilities. In an exchange, reusable water is added to a stream at a downstream location to enable diversion of a like amount of water at an upstream location. 2. Deliver the reusable water to the recycling plant, treat the water, and distribute it for non-potable uses. The recycling plant requires gravel pit storage to supply reusable water to the recycle

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>plant, via exchange, when reusable water is not available at Metro Reclamation District Wastewater Treatment Plant (WWTP) or Littleton-Englewood (Bi-City) WWTP.</p> <p>3. Deliver an annual supply of 5,000 AF of reusable water to South Adams County Water and Sanitation District (per agreements).</p> <p>4. Use reusable water to augment raw water systems in the Denver Metropolitan area (e.g., augment the wells used to supply water to Denver parks).</p> <p>The reusable water needed to support these projects was included in the PACSM simulations and therefore less reusable water is available for a new project. These projects were not on-line in from 1998 to 2008 as noted in the comment, but once these projects are completed, the average annual available unused reusable effluent is estimated to be approximately 7,600 AF. This is an example of why it is inappropriate to simply rely on historical values to draw conclusions.</p> <p>As shown in the DEIS Table 2-9, the estimated 7,600 AF of average annual unused reusable water ranges from to zero AF some years, to as high as approximately 37,500 AF in one year. The highest year of unused return flows does occur in a dry year, but many other dry years and periods have less than the 6,700 AF average. Project alternatives that included 5,000 AF of yield using the reusable return flows were analyzed. Alternative that included more than 5,000 AF would have been even more expensive on a cost per AF basis. Also note that with PACSM, Denver Water's unused reusable return flows are used and reused to extinction.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1084 Cindy Southway</p>	<p>2/24/2010</p> <p>Scott Franklin, Moffat EIS Project Manager US Army Corps of Engineers, Omaha District Denver Regulatory Office 9307 South Wadsworth Boulevard Littleton, CO 80128</p> <p>Moffat DEIS Comments</p> <p>Dear Mr. Franklin,</p> <p>The Draft Environmental Impact Statement (DEIS) for the Moffat Firing Project is one of the poorest quality documents that I have ever seen. As a former NEPA Specialist for the USDA Forest Service, I have written and reviewed many NEPA documents and would be embarrassed to have my name attached to this one. It is ridiculously large and cumbersome, but at the same time it omits quality data and analysis and does not substantiate that there is a legitimate purpose and need for the project.</p> <p>Please address the following comments and concerns:</p> <ol style="list-style-type: none"> 1. The current DEIS does not meet the NEPA criteria of "Plain Language". 40 CFR Part 1502.8 states that "Environmental Impact Statements should be written in plain language and may use appropriate graphics so that decisionmakers and the public can readily understand them." The sheer volume of the DEIS makes it virtually unprintable and unreadable. The DEIS is not written in a manner that the public can readily understand. It appears that the writers and project proponents prepared the DEIS using the maxim that quantity was more important than quality and that a huge document would be more difficult for people to understand and oppose the project. <p>A new draft environmental impact statement must be prepared that is easier to print and read and includes the data and analysis that are so egregiously lacking in this draft. It is not fair to the public to go from this incomplete and unusable document to a final environmental impact statement with no chance for additional comments.</p> <p style="text-align: center;">  </p> <p style="text-align: right;">Page 1</p> <p style="text-align: left;">Southway Comment Letter 2/24/10</p>	<p>Comment #1084-17 (ID 2158): <i>The Draft Environmental Impact Statement (DEIS) for the Moffat Firing Project is one of the poorest quality documents that I have ever seen. As a former NEPA Specialist for the USDA Forest Service, I have written and reviewed many NEPA documents and would be embarrassed to have my name attached to this one. It is ridiculously large and cumbersome, but at the same time it omits quality data and analysis and does not substantiate that there is a legitimate purpose and need for the project.</i></p> <p>Response #1084-17: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1084-16 (ID 2157): <i>Please address the following comments and concerns: The current DEIS does not meet the NEPA criteria of "Plain Language". 40 CFR Part 1502.8 states that "Environmental Impact Statements should be written in plain language and may use appropriate graphics so that decisionmakers and the public can readily understand them." The sheer volume of the DEIS makes it virtually unprintable and unreadable. The DEIS is not written in a manner that the public can readily understand. It appears that the writers and project proponents prepared the DEIS using the maxim that quantity was more important than quality and that a huge document would be more difficult for people to understand and oppose the project. A new draft environmental impact statement must be prepared that is easier to print and read and includes the data and analysis that are so egregiously lacking in this draft. It is not fair to the public to go from this incomplete and unusable document to a final environmental impact statement with no chance for additional comments.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>2. The Purpose and Need Statement does not define a need for the project. The Purpose and Need Statement maintains that <i>"The purpose of the Moffat Collection System Project is to develop 18,000 acre feet per year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant pursuant to the Board of Water Commissioners' commitment to its customers."</i> There is a purpose defined, but no need defined in this Purpose and Need Statement.</p> <p>A new purpose and need statement must be developed, that actually demonstrates a real need for the project.</p> <p>It appears that Denver Water only "needs" 15,000 Acre Feet and that the City of Arvada wants 3,000 Acre Feet, thereby totaling a "need" for 18,000 AF. The City of Arvada demonstrates no need for 3,000 AF in the current Purpose and Need Statement. Why is the City of Arvada being allowed to participate in this Denver Water Project?</p> <p>The need for the project is defined later in the DEIS as addressing a water supply shortage beginning in 2016 that Denver Water anticipates and that Denver Water has an imbalance in their reservoir storage on the South System - still not much of a defined "need".</p> <p>a. The DEIS states that 15,000 Acre Feet (AF) of this firm yield would be for Denver Water and 3,000 Acre Feet would be for the City of Arvada.</p> <p>Since the "need" for this project is to address shortages and imbalance in the Denver Water System and this DEIS states that Denver Water only needs 15,000 AF, then why is the City of Arvada being allowed to be a part of this project and get 3,000 AF? Where is the "need" for the City of Arvada in the Purpose and Need Statement?</p> <p>b. The Denver Water Department continues to expand its boundaries and include ever-more developments and service area. When will this stop? Will Denver Water eventually reach the Kansas border?</p> <p>The need for this project is based on an expanding service area for Denver Water and the inclusion of the City of Arvada's water needs as well, both must be re-evaluated in the</p> <p style="text-align: center;">Southway Comment Letter 2/28/10 Page 2</p>	<p>Response #1084-16:</p> <p>The Corps made significant efforts to present the technical information in "plain language" for the general public. Where possible, tables, graphics, and maps were used to summarize and present technical data. For example, a comparative summary of the potential impacts by resource discipline for each action alternative and the No Action Alternative is presented in FEIS Table 5.22-1 (by alternative) and Table 5.22-2 (by river segments). These tables allow the reader to compare potential effects by discipline and alternative.</p> <p>Please refer to the reorganized format of the FEIS, which provides a revised baseline for more detailed discussion of Project-related effects. FEIS Chapter 4 now describes the total environmental effects (the Project in combination with other reasonably foreseeable projects) that are anticipated to occur between Current Conditions (2006) and Full Use with a Project Alternative (2032). FEIS Chapter 5 describes Project-related effects between Full Use of the Existing System and Full Use with a Project Alternative (2032).</p> <p>Comment #1084-15 (ID 2156):</p> <p><i>The Purpose and Need Statement does not define a need for the project. The Purpose and Need Statement maintains that "The purpose of the Moffat Collection System Project is to develop 18,000 acre feet per year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant pursuant to the Board of Water Commissioners' commitment to its customers." There is a purpose defined, but no need defined in this Purpose and Need Statement, A new purpose and need statement must be developed, that actually demonstrates a real need for the project.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">EIS. The Permit must set the service area for Denver Water to remain where it is for the next 15-25 years and the City of Arvada's water needs must be removed from this project's scope.</p> <p>3. This DEIS not include data and modeling from the proposed Windy Gap Firming Project. Since the Windy Gap Firming Project is undeniably a "reasonably foreseeable future action", the cumulative impacts of both projects must be analyzed according to 40CFR 1508.7. It is not just a good idea - it is the law!</p> <p>It is clear that by adding the environmental consequences of the proposed Windy Gap Firming Project to the environmental consequences of this project, results and analysis would show dramatic increases in the level of project impacts - which is precisely the reason this wasn't done to begin with.</p> <p>I am guessing that the project proponent is arguing that the Windy Gap Firming Project is only proposed and doesn't have to be seen as a future action. I have heard this argument many times in NEPA projects that I was working on. We all know that it is CLEARLY the intent of the NEPA laws to include foreseeable impacts and that the argument for not including the data does not stand up to scrutiny, but it does provide project opponents with a good appeal point later.</p> <p>Data and modeling of the environmental impacts from the proposed Windy Gap Firming Project must be included and analyzed as cumulative impacts in the EIS - as required by 40CFR 1508.7. Once this data is included, there is no possible way that project impacts below Windy Gap will be considered "insignificant" and it is laughable that this DEIS reaches that conclusion now.</p> <p>The EIS must fully recognize and mitigate the combined effects that the Moffat Firming Project and the Windy Gap Firming Project will have on the Upper Colorado River.</p> <p>4. Water conservation is recommended but not required in this DEIS. Conservation must be included as a mandatory component of this project in the Permit, not as a mitigation recommendation! The savings from the conservation must be included in the calculation of obtaining 18,000 AF (or is it 15,000 AF that Denver Water actually needs?).</p> <p style="text-align: left; font-size: small;">Southway Comment Letter 2/24/10</p> <p style="text-align: right; font-size: small;">Page 3</p>	<p>Response #1084-15: Please see the response to Comment ID 2154.</p> <p>The purpose of the Moffat Project is to address four problems: (1) the lack of a reliable water supply for the Moffat Water Treatment Plant (WTP) and raw water customers upstream of the treatment plant; (2) the imbalance in Denver Water's raw water supply system; (3) a near-term shortfall in the entire supply system for meeting customer needs as growth occurs in the Combined Service Area (CSA); and (4) a need for flexibility in Denver Water's Collection System. All four of these problems are addressed with one solution: the addition of 18,000 AF/yr. of new firm yield available to the North System. The EIS focuses on a sufficient and reliable water supply for the CSA. Denver Water has no current plans to revise the boundaries of the CSA.</p> <p>Comment #1084-14 (ID 2155): <i>It appears that Denver Water only "needs" 15,000 Acre Feet and that the City of Arvada wants 3,000 Acre Feet, thereby totaling a "need for 18,000 AF. The City of Arvada demonstrates no need for 3,000 AF in the current Purpose and Need Statement. Why is the City of Arvada being allowed to participate in this Denver Water Project? The need for the project is defined later in the DEIS as addressing a water supply shortage beginning in 2016 that Denver Water anticipates and that Denver Water has an imbalance in their reservoir storage on the South System - still not much of a defined "need". a. The DEIS states that 15,000 Acre Feet (AF) of this firm yield would be for Denver Water and 3,000 Acre Feet would be for the City of Arvada. Since the "need" for this project is to address shortages and imbalance in the Denver Water System and this DEIS states that Denver Water only needs 15,000 AF, then why is the City of Arvada being allowed to be a part of this project and get 3,000 AF? Where is the "need" for the City of Arvada in the Purpose and Need Statement?</i></p>



Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>a. Denver Water customers should not be penalized by increases in water bills when they use less water. Customers must be rewarded with lower rates, not higher rates.</p> <p>b. Ditches, canals and other water transportation system and storage elements must be upgraded and lined to prevent leakage and evaporation. An analysis needs to be done and included in the EIS on how much water can be saved by simply lining the ditches and water ways on both the eastern and western slopes.</p> <p>c. Blue grass and other non water-efficient vegetation need to be banned within the Denver Water service area or at least charged an additional premium fee on customer's water bills.</p> <p>5. The impact on western slope creeks and rivers requires further analysis. It is not enough to simply state that there is little or no environment impact to the creeks and rivers, a more thorough and accurate analysis of water quality and temperature gradients needs to be done on the Fraser River, Colorado River below Windy Gap and the Williams Fork River.</p> <p>a. The Grand County Stream Management Plan must be incorporated in the Permit as a tool in establishing a reasonable mitigation plan. Measured flows, temperatures, sediment deposits, gravel movement, fishery numbers, and water quality that are established in the Plan must be used as a basis for impact and mitigation regulated in the Permit.</p> <p>b. The data from the Steam Management Plan must be included in the analysis of the environmental impacts to the streams and rivers.</p> <p>c. Better data must be used for modeling water quality, temperature and water quantity on western slope rivers.</p> <p>d. Denver Water must be required to maintain baseline flows that will sustain all rivers at temperatures that are equal to or surpass state standards.</p> <p>6. Wetland impacts are not been sufficiently analyzed in this DEIS. Dewatering the Fraser River will have dramatic effects on the wetlands and ranchlands that are near the Fraser and Colorado Rivers.</p> <p style="text-align: center;">Southway Comment Letter 2/24/10 Page 4</p>	<p>Response #1084-14: The City of Arvada is not an applicant or a participant in this EIS. Denver Water entered into an IGA with Arvada in 1999 to secure the rights to purchase land for Leyden Gulch Reservoir and zoning from Arvada which allowed the reservoir to be developed on that land. In return, Arvada received the option to obtain water from the Moffat Project, the amount dependent on the size of the reservoir. Therefore, the 3,000 AF Arvada would receive from the Moffat Project is a cost of the Project, consideration taken as water instead of money for Arvada's support. It is also a Project demand because Arvada's payment in water adds to the size of the total amount of water required. This is noted as such in the EIS, but Arvada's need for the 3,000 AF does not need to be proven.</p> <p>Comment #1084-6 (ID 2154): <i>The Denver Water Department continues to expand its boundaries and include ever-more developments and service area. When will this stop? Will Denver Water eventually reach the Kansas border? The need for this project is based on an expanding service area for Denver Water and the inclusion of the City of Arvada's water needs as well, both must be re-evaluated in the EIS. The Permit must set the service area for Denver Water to remain where it is for the next 15-25 years and the City of Arvada's water needs must be removed from this project's scope.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>a. A more thorough analysis of the impacts to wetlands within ½ mile of the Fraser and Colorado River corridors must be included in the EIS.</p> <p>b. Denver Water has not implemented sufficient conservation actions to avoid damage to wetlands in Grand County and must be required by the Permit to do so.</p> <p>7. The impact of this project on recreation, tourism, river rafting and fishing on the Colorado River below Windy Gap must be analyzed. The DEIS concludes that there is little or no significant impact on recreation, river rafting and fishing on the Colorado River below Windy Gap. Any reasonable person knows that there will be HUGE impacts on recreation, tourism, river rafting and fishing on the Colorado River below Windy Gap if there is less water in the river. I am guessing that the conclusion that was drawn in the DEIS was pulled out of thin air.</p> <p>a. A more thorough analysis of the impacts of this project on recreation, tourism, river rafting and fishing must be included in the EIS and mitigation requirements added to the Permit.</p> <p>8. The impact of this project on Lake Granby, Shadow Mountain and Grand Lake must be analyzed and included in the EIS. The dewatering of the Fraser River and its transport through the Colorado-Big Thompson project into Lake Granby, Shadow Mountain and Grand Lake will increase nutrient levels, algae blooms and deteriorating water quality in these lakes, as well as diminishing water clarity. Why wasn't this analyzed in the DEIS? It is a HUGE impact!</p> <p>a. The project impacts on Lake Granby, Shadow Mountain and Grand Lake must be analyzed and included in the EIS. Mitigation actions to decrease project impacts on these lakes must also be required in the Permit.</p> <p>9. The No-Action Alternative which authorizes an additional 12% dewatering of the Fraser River is not acceptable. I support the Preferred Alternative with <u>comprehensive</u> mitigation requirements.</p> <p>10. It is clear that a mechanism for midcourse correction must be included in the permit and must be enforceable and funded. Denver</p> <p style="text-align: center;">Southway Comment Letter 2/24/10 Page 5</p>	<p>Response #1084-6:</p> <p>The purpose of the Moffat Project is to address four problems: (1) the lack of a reliable water supply for the Moffat WTP and raw water customers upstream of the treatment plant; (2) the imbalance in Denver Water's raw water supply system; (3) a near-term shortfall in the entire supply system for meeting customer needs as growth occurs in the CSA; and (4) a need for flexibility in Denver Water's Collection System. All four of these problems are addressed with one solution: the addition of 18,000 AF/yr. of new firm yield available to the North System. The EIS focuses on a sufficient and reliable water supply for the CSA. Denver Water committed to not expanding the boundaries of the CSA in the recently signed CRCA. Refer to Chapter 5 for details.</p> <p>Denver Water serves customers within the City and County of Denver as well as a number of suburban distributors in surrounding counties (portions of Adams, Arapahoe, Broomfield, Douglas and Jefferson counties) in addition to special contracts. Denver Water's customers are described in Section 1.3.3. Figure 1-4 shows Denver Water's CSA which includes the City and County of Denver as well as the portions of other counties served by Denver Water. Denver Water also has a number of contracts with entities outside the CSA, which are perpetual obligations. Although Denver Water does not have authority over growth management or land development policy and procedures, Denver Water is still obligated to respond to increased demand in providing water to its customers within its CSA.</p> <p>If a project is not developed (No Action Alternative), Denver Water does not have an obligation to provide Arvada with up to 3,000 AF/yr. However, Arvada would still have this demand to be met without an identified supply.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>Water must be required to address mitigation corrections as they are needed in the future.</p> <p>a. As part of the mitigation <u>requirements</u>, money must be used and a program set up to monitor and correct the effects of this project on the creeks, rivers and riparian areas.</p> <p>11. The Mitigation/Enhancement Proposals from Denver Water and the Municipal Subdistrict of the Northern Colorado Conservancy District in April 2009 must be defined in the Permit as enforced requirements of this project, not as enhancements or recommendations.</p> <p>12. The following mitigation requirements should be added:</p> <p>a. Stream monitoring and improvements</p> <p>b. Facility improvements for the Towns of Hot Sulphur Springs and Kremmling</p> <p>c. Monitoring and improvements for the ranchers along the Fraser and Colorado Rivers within Grand County</p> <p>Sincerely,</p> <p></p> <p>Cindy Southway</p> <p></p> <p>cc: Larry Svoboda, NEPA Compliance & Review Program, EPA</p> <p><small>Southway Comment, Lacey 2/24/10</small></p> <p><small>Page 6</small></p>	<p>Therefore, the Corps believes it is a reasonable and conservative approach to include the 3,000 AF in the predicted 2032 demand in the analysis. There would be a shortage of water supply without a Project, but the demand would still be there. The Corps does not believe that the inclusion of 3,000 AF/yr necessarily increases the likelihood of a Project alternative that includes land for a potential reservoir site (Leyden Gulch).</p> <p>Comment #1084-13 (ID 2153): <i>This DEIS not include data and modeling from the proposed Windy Gap Firming Project. Since the Windy Gap Firming Project is undeniably a "reasonably foreseeable future action", the cumulative impacts of both projects must be analyzed according to 40 CFR 1508.7. It is not just a good idea - it is the law! It is clear that by adding the environmental consequences of the proposed Windy Gap Firming Project to the environmental consequences of this project, results and analysis would show dramatic increases in the level of project impacts - which is precisely the reason this wasn't done to begin with. I am guessing that the project proponent is arguing that the Windy Gap Firming Project is only proposed and doesn't have to be seen as a future action. I have heard this argument many times in NEPA projects that I was working on. We all know that it is CLEARLY the intent of the NEPA laws to include foreseeable impacts and that the argument for not including the data does not stand up to scrutiny, but it does provide project opponents with a good appeal point later. Data and modeling of the environmental impacts from the proposed Windy Gap Firming Project must be included and analyzed as cumulative impacts in the EIS - as required by 40 CFR 1508.7. Once this data is included, there is no possible way that project impacts below Windy Gap will be considered "insignificant" and it is laughable that this DEIS</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>reaches that conclusion now. The EIS must fully recognize and mitigate the combined effects that the Moffat Firming Project and the Windy Gap Firming Project will have on the Upper Colorado River.</i></p> <p>Response #1084-13: Data obtained from NCWCD was generated using the WGFP Model for the WGFP EIS. Model results were provided for the Proposed Action, Chimney Hollow Reservoir with prepositioning, which was analyzed in the EIS. Monthly WGFP Model output provided by NCWCD includes Adams Tunnel C-BT and Windy Gap deliveries (separately), Windy Gap demands, Windy Gap deliveries from Chimney Hollow and Granby Reservoir to meet demands, Windy Gap pumping, Willow Creek Feeder Canal diversions, Willow Creek Reservoir end-of-month storage contents, Granby Reservoir end-of-month storage contents by account (C-BT, Windy Gap, and dead storage), and flow data at the Colorado River below Lake Granby gage (09019500), Colorado River below the Windy Gap diversion, Willow Creek at the confluence with the Colorado River, and Fraser River at the Granby gage (09034000). PACSM was configured to reflect similar Windy Gap demands, diversions, and deliveries. This was accomplished by modifying the demands placed at the Windy Gap and Adams Tunnel nodes in PACSM to match the data provided by NCWCD.</p> <p>Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p> <p>Comment #1084-12 (ID 2152): <i>Water conservation is recommended but not required in this DEIS. Conservation must be included as a mandatory component of this project in the Permit, not as a mitigation recommendation!</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>The savings from the conservation must be included in the calculation of obtaining 18,000 AF (or is it 15,000 AF that Denver Water actually needs?). a. Denver Water customers should not be penalized by increases in water bills when they use less water. Customers must be rewarded with lower rates, not higher rates. b. Ditches, canals and other water transportation system and storage elements must be upgraded and lined to prevent leakage and evaporation. An analysis needs to be done and included in the EIS on how much water can be saved by simply lining the ditches and water ways on both the eastern and western slopes. c. Blue grass and other non water-efficient vegetation need to be banned within the Denver Water service area or at least charged an additional premium fee on customer's water bills.</i></p> <p>Response #1084-12: Conservation Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>As shown in FEIS Table 1-1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Rate Structures All Denver Water customers are metered. Denver Water implements a Block Census Rate Structure (i.e., the more one uses, the more one pays). Rates are based on a cost of service analysis comprised of customer classes (e.g., residential, industrial, commercial, and institutional) and by whether customers live inside or outside the City and County</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>of Denver. Costs are recovered from each customer class in proportion to the cost of providing the service to each class. Rates consist of a consumption charge per 1,000 gallons consumed a fixed, per account service charge.</p> <p>Maintenance of Infrastructure On average, Denver Water spends \$15 million per year on existing system maintenance and improvements. In addition, Denver Water's Ten-Year Capital Plan projects expenditures for additions, improvements, and replacements to water system facilities.</p> <p>Landscape Requirements Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1084-5 (ID 2151): <i>The impact on western slope creeks and rivers requires further analysis. It is not enough to simply state that there is little or no environment impact to the creeks and rivers, a more thorough and accurate analysis of water quality and temperature gradients needs to be done on the Fraser River, Colorado River below Windy Gap and the Williams Fork River.</i></p> <p>Response #1084-5: Additional water quality analysis has been performed for the Fraser River and Colorado River. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1084-4 (ID 2150): <i>The Grand County Stream Management Plan must be incorporated in the Permit as a tool .in establishing a reasonable mitigation plan. Measured flows, temperatures, sediment deposits, gravel movement, fishery numbers, and water quality that are established in the Plan must be used as a basis for impact and mitigation regulated in the Permit. b. The data from the Steam Management Plan must be included in the analysis of the environmental impacts to the streams and rivers.</i></p> <p>Response #1084-4: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11, and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project,</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>mitigation will be evaluated and required, including Adaptive Management for mitigation.</p> <p>Comment #1084-3 (ID 2149): <i>Better data must be used for modeling water quality, temperature and water quantity on western slope rivers. d. Denver Water must be required to maintain baseline flows that will sustain all rivers at temperatures that are equal to or surpass state standards.</i></p> <p>Response #1084-3: Additional water quality analyses have been performed on the Fraser River and the Three Lakes area, including various temperature studies. Refer to FEIS Sections 4.6.2 and 5.2. Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit. Minimum flows are part of the discussion.</p> <p>Comment #1084-2 (ID 2148): <i>Wetland impacts are not been sufficiently analyzed in this DEIS. Dewatering the Fraser River will have dramatic effects on the wetlands and ranchlands that are near the Fraser and Colorado Rivers. a. A more thorough analysis of the impacts to wetlands within ½ mile of the Fraser and Colorado River corridors must be included in the EIS. b. Denver Water has not implemented sufficient conservation actions to avoid damage to wetlands in Grand County and must be required by the Permit to do so.</i></p> <p>Response #1084-2: The DEIS evaluated effects on riparian areas and wetlands from reductions in the two-year floodplain and from potential groundwater changes. Additional information has been added to FEIS Section 5.8.1.2 regarding changes in inundation for return flows longer than two years (FEIS Section 5.8), and</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>additional analysis of groundwater effects based on evaluation of monitoring wells in the Fraser Valley (FEIS Section 5.4.1).</p> <p>Water conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1084-1 (ID 2147): <i>The impact of this project on recreation, tourism, river rafting and fishing on the Colorado River below Windy Gap must be analyzed. The DEIS concludes that there is little or no significant impact on recreation, river rafting and fishing on the Colorado River below Windy Gap. Any reasonable person knows that there will be HUGE impacts on recreation, tourism, river rafting and fishing on the Colorado River below Windy Gap if there is less water in the river. I am guessing that the conclusion</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>that was drawn in the DEIS was pulled out of thin air. a. A more thorough analysis of the impacts of this project on recreation, tourism, river rafting and fishing must be included in the EIS and mitigation requirements added to the Permit.</i></p> <p>Response #1084-1: The most current information available at the time of the DEIS analysis was used in identifying minimum and optimum flows. In the DEIS, the days for minimum and optimum flows were determined from several sources including the Upper Colorado River Basin Study, American Whitewater, and personal interviews with commercial raft guides and private kayakers. The analysis examined daily flows over the course of the full 45 years of record. This same analysis was repeated in FEIS Section 5.15.1.2 but was revised to compare Current Conditions (2006) to Full Use with a Project Alternative (2032) using daily flows over the full 45 years of record. The Upper Colorado River Stakeholder Group Conceptual Plan for a Wild and Scenic Management Alternative was released on June 30, 2008 and an updated Upper Colorado River Wild and Scenic Stakeholder Group Management Plan was provided to the Bureau of Land Management (BLM) in January 2012. This document was reviewed and included as a consulted resource in the FEIS.</p> <p>Impacts to the quality of the fishing experience primarily depends on the quality and health of the fisheries, which is addressed in DEIS Section 4.9.1. At most locations, the analysis of aquatic biological resources concluded that impacts to the health of the fishery would be minor or negligible. Therefore, impacts to the recreational experience would also be minor. FEIS Sections 4.6.11 and 5.11 have been reviewed and conclusions regarding the health of the fisheries, including the quality of fish, were considered for consistency in revisions to FEIS</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Section 5.15.1.2. Impacts to the local economy of the area were addressed in DEIS Section 4.17.</p> <p>Comment #1084-11 (ID 2146): <i>The impact of this project on Lake Granby, Shadow Mountain and Grand Lake must be analyzed and included in the EIS. The dewatering of the Fraser River and its transport through the Colorado-Big Thompson project into Lake Granby, Shadow Mountain and Grand Lake will increase nutrient levels, algae blooms and deteriorating water quality in these lakes, as well as diminishing water clarity. Why wasn't this analyzed in the DEIS? It is a HUGE impact! a. The project impacts on Lake Granby, Shadow Mountain and Grand Lake must be analyzed and included in the EIS. Mitigation actions to decrease project impacts on these lakes must also be required in the Permit.</i></p> <p>Response #1084-11: Additional water quality analysis has been performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1084-10 (ID 2145): <i>The No-Action Alternative which authorizes an additional 12% dewatering of the Fraser River is not acceptable. I support the Preferred Alternative with comprehensive mitigation requirements.</i></p> <p>Response #1084-10: Denver Water's Conceptual Mitigation Plan appears in FEIS Appendix M. A mitigation plan will be submitted to the Corps by Denver Water for review by the Corps prior to issuance of a Section 404 Permit. However, the final decision on the appropriate level of mitigation rests with the Corps.</p> <p>The final detailed plan includes the following information for each compensatory mitigation</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>measure:</p> <ul style="list-style-type: none"> • Objectives – A description of the resources, the amount of affected resources, the amount of mitigation, and the method of compensation. • Site Selection – A description of the methods used to select a mitigation site and the proposed location of the mitigation site. • Baseline Information – A description and photograph of the existing conditions of the proposed mitigation site. • Mitigation Work Plan – Detailed specifications and work descriptions for the proposed mitigation, which will include as appropriate geographic boundaries of the mitigation site, construction methods, a grading plan, erosion control measures, revegetation and planting specifications, and schedule. • Maintenance Plan – A description and schedule of maintenance needed to ensure the mitigation is properly functioning. • Performance Standards – Standards and criteria used to determine if the mitigation project has been successfully implemented and is achieving the objectives. • Monitoring Requirements – A description of what will be monitored to determine if the performance criteria are met, and a schedule for monitoring and reporting. • Long-term Management Plan – A description of how the mitigation project will be managed after the performance standards are met to ensure the long-term viability of the mitigation.

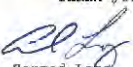


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<ul style="list-style-type: none"> • Adaptive Management – A description of how unforeseen changes in site conditions, the inability to fully implement the proposed mitigation, or the inability to fully meet performance standards will be addressed. • Financial Assurances – A description of sufficient financial assurances to ensure a high level of confidence that the compensatory mitigation will be successfully completed. <p>Comment #1084-9 (ID 2144): <i>It is clear that a mechanism for midcourse correction must be included in the permit and must be enforceable and funded. Denver Water must be required to address mitigation corrections as they are needed in the future. a. As part of the mitigation requirements, money must be used and a program set up to monitor and correct the effects of this project on the creeks, rivers and riparian areas.</i></p> <p>Response #1084-9: Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>Comment #1084-8 (ID 2143): <i>The Mitigation/Enhancement Proposals from Denver Water and the Municipal Subdistrict of the Northern Colorado Conservancy District in April 2009 must be defined in the Permit as enforced requirements of this project, not as enhancements or recommendations.</i></p> <p>Response #1084-8: The Corps will include specific mitigation measures that are enforceable through a Section 404 Permit, if issued. CDPHE will also include specific water quality mitigation measures that are enforceable</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>through a Section 401 Certification. The U.S. Fish and Wildlife Service (USFWS) will include specific requirements to protect threatened and endangered species that are enforceable through a Biological Opinion (BO). In addition, Denver Water has entered into three agreements that would enhance the existing environment and provide additional protections: CRCA, LBD Cooperative Effort, and Fish and Wildlife Enhancement Plan, copies of which are provided in FEIS Appendix M.</p> <p>Each of these plans will be implemented through permanent agreements between the parties. The Corps will consider these agreements, along with all “reasonably foreseeable future actions” in its decision process regarding the proposed Moffat Project. These agreements are not intended to mitigate the impacts of the proposed Project; instead, the purpose is to improve existing conditions of aquatic environments in the Colorado River Basin should Gross Reservoir be enlarged.</p> <p>Comment #1084-7 (ID 2142): <i>The following mitigation requirements should be added: a. Stream monitoring and improvements b. Facility improvements for the Towns of Hot Sulphur Springs and , Kremmling c. Monitoring and improvements for the ranchers along the Fraser and Colorado Rivers within Grand County</i></p> <p>Response #1084-7: FEIS Appendix M contains a Conceptual Mitigation Plan proposed by Denver Water to mitigate Project-related impacts identified in the EIS. The Corps will determine if the proposed mitigation would offset identified impacts. The final mitigation measures will be specified by the Corps as Section 404 Permit conditions, if a permit is issued.</p>

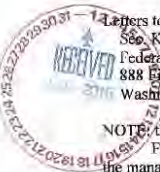
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1086 Conrad Long</p>	<p style="text-align: right;">March 2, 2010</p> <p>Scott Franklin Moffat EIS Project Manager US Army Corps of Engineers Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Sir,</p> <p>I am writing to express some of my concerns regarding the Denver Water Board's Moffat FIRMing Project and it's Draft EIS.</p> <p>In my thirty plus years in Grand county I have seen a gradual but certain deterioration in the environmental quality of the Fraser river system, ranging from increased algae growth through sediment build-up to higher water temperatures. It is my opinion that the river system is already stressed by the current level of diversions, and I strongly oppose any further unnatural disturbance of the river's ecosystem.</p> <p>I realize that Denver Water owns much of the water rights to the Fraser, and that the Front Range will continue to demand more water. It is nonetheless my belief that much, if not all of that demand can be met by conserving, with little change in lifestyle. In the event of reduced runoff or greater future demand, I still believe that sufficient flows to keep the Fraser both clean and cool should be guaranteed. It would be a shame to leave future generations with a river that was sacrificed for green lawns.</p> <p>Thank you for your time and attention.</p> <p> Conrad Long</p> <p></p> <p></p>	<p>Comment #1086-1 (ID 2160): <i>I am writing to express some of my concerns regarding the Denver Water Board's Moffat FIRMing Project and it's Draft EIS. In my thirty plus years in Grand county I have seen a gradual but certain deterioration in the environmental quality of the Fraser river system, ranging from increased algae growth through sediment build-up to higher water temperatures. It is my opinion that the river system is already stressed by the current level of diversions, and I strongly oppose any further unnatural disturbance of the river's ecosystem.</i></p> <p>Response #1086-1: The proposed Project would not increase diversions during low flow periods nor would it change Denver Water's existing bypass requirements. Additional water quality analysis has been performed for the Fraser River. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1086-2 (ID 2159): <i>I realize that Denver Water owns much of the water rights to the Fraser, and that the Front Range will continue to demand more water. It is nonetheless my belief that much, if not all of that demand can be met by conserving, with little change in lifestyle. In the event of reduced runoff or greater future demand, I still believe that sufficient flows to keep the Fraser both clean and cool should be guaranteed. It would be a shame to leave future generations with a river that was sacrificed for green lawns.</i></p> <p>Response #1086-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1150 David A. Stewart</p>	 <p>Letters to Federal Energy Regulatory Commission and to the US Army Corps of Engineers Sgt. Kimberly Bose Federal Energy Regulatory Commission 888 First Street NE Washington DC 20426</p> <p>Mr. Scott Franklin US Army Corps of Engineers 9307 South Wadsworth Blvd. Littleton, Co 80128-6901</p> <p>NOTE: the FERC project is #2035; the letter should be regarding project #2035, and dated FERC oversees environmental matters related to hydroelectric projects and in the management plan for Denver Water at Gross Reservoir says, "The overall landscape characteristics around the reservoir should remain natural appearing, with limited human intervention." In fact, 30 acres will be permanently destroyed, including the unreclaimed quarry.</p> <p>"Talking points," impacts and issues to address.</p> <p><u>I. Major Impacts.</u></p> <p>1. <u>Traffic in Coal Creek Canyon.</u> There will be haul trucks, lumber trucks and worker vehicles up and down the canyon, over four years. This is a major impact, and is not "temporary." That's like saying, "You will be temporarily sick for four years." FACT: 44-74 haul truck trips/day (260 days a year, 8am-3pm or longer); 202 worker vehicle trips/day.</p> <p>2. <u>Traffic safety issues are not addressed.</u> The Environmental Impact Statement does not address safety for bicyclists. In the summer, scores of bicyclists ride the canyon for pleasure and training. There is no bicycle lane. The danger to bicyclists by constant haul truck traffic will escalate; there will be deaths. Five enhanced pull-off areas on the highway will not solve this. We also have large groups of motorcycleists in the summer. The risks they will take are frightening to think about. The corner at United Power where all the trucks and vehicles will turn is tight and the community center is just across the highway. This is dangerous. Until these traffic safety issues are addressed and mitigation plans created, FERC and the US Army Corps of Engineers should not grant the permit to Denver Water.</p> <p>3. <u>The destruction</u> from the excavation of a quarry on the edge of the reservoir, which will not be reclaimed, is correctly described as "permanent and major." In all, 30 acres will be destroyed and above water level. This entire project is contrary to the goals of FERC, Boulder County and the National Forest Plan to maintain the land as "forested" and natural.</p> <p>4. <u>The loss of 20,000+ trees</u> is a major, permanent impact. From an environmental point of view, the fact that the land will be inundated with water is irrelevant. The carbon sink is gone.</p> <p>5. <u>Noise.</u> There is nothing "temporary and minor" about the sound of diesel engines, rock crushing, a cement plant and earth moving equipment, day and night at times, for four years. The Corps draft EIS says "At a distance greater than 50 ft. noise levels diminish rapidly." This is nonsense. At this altitude, sound carries easily through the dry air. We can hear a dog barking a mile away. Most significantly, sound travels upward. The residents all live above the reservoir. For some of us the noise may be muffled, for others it will be obtrusive, but for everyone it will be a constant background annoyance. Some of us live here because we crave the sound of silence and the wind in the trees; that will be gone. The statement by the Corps does not address mitigation of the noise impact. Denver Water should not be permitted to expand the dam until noise mitigation is addressed satisfactorily.</p> <p>6. <u>Quality of life.</u> The "quality of life" of Denver Water customers is repeatedly addressed under the No Action alternative, regarding the supposed hardships of water restrictions during drought that will ensue if Gross Reservoir is not expanded. Quality of life of those exposed to the</p>	<p>Comment #1150-1 (ID 2180): <i>FERC oversees environmental matters related to hydroelectric projects and in the management plan for Denver Water at Gross Reservoir says, "The overall landscape characteristics around the reservoir should remain natural appearing, with limited human intervention." In fact, 30 acres will be permanently destroyed, including the unreclaimed quarry. "Talking points," impacts and issues to address.</i></p> <p>Response #1150-1: The location of the quarry is illustrated on DEIS Figure 2-3 and details regarding the operation of the quarry are provided in DEIS Section 2.3. Visual impacts from the quarry at Gross Reservoir are discussed in DEIS Section 4.15.1.</p> <p>An additional mitigation measure has been added to FEIS Section 5.17 to address reclamation of the quarry site. The proposed quarry site would be primarily located on USFS land; therefore, Denver Water would work closely with the USFS to ensure appropriate reclamation of this site and any alternative quarry sites.</p> <p>Blasting for excavation and construction at the Gross Reservoir Dam would create relatively minor shock waves, and may cause slight vibrations to be felt in the nearby area. The blasting vibrations would not affect groundwater levels or the aquifers from which the wells draw groundwater. Studies of blasting effects at other sites have shown that the vibratory shock waves generally do not have any effect on water wells. However, some studies have noted the possibility that if there were an old or poorly constructed well located within 300 feet of the blasting zone, the blasting vibrations could cause corrosion-weakened pipe in the well to bend or collapse.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>construction of the dam, for years, is ignored. Driving in the canyon is already stressful and everything that is stressful about it will be compounded.</p> <p>7. <u>Western slope rivers.</u> The river basins on the western slope that feed Gross Reservoir are already being depleted. Adding 72,000 AF to Gross Reservoir from the western slope is a major impact. If Denver Water focused its resources more on conservation and less on expansion and "what if" scenarios, the western slope rivers and streams could be saved from further diversion. The US Army Corps of Engineers should not permit the reservoir; it should make Denver Water go back to the drawing board with a plan to eliminate the shortfall through conservation.</p> <p>8. <u>Urban sprawl.</u> The City of Arvada (contracted with Denver Water to receive 3,000 AF/yr from the expanded reservoir) and local developers are eagerly waiting to begin developing a large tract near the base of Coal Creek Canyon. Although the Corps is mandated to address growth and development in the Environmental Impact Statement, it fails to do so. This issue must be evaluated before granting a permit to Denver Water.</p> <p><u>II. Failure to demonstrate need and other issues:</u> The US Army Corps of Engineers is mandated to examine reasonable, practical and common sense alternatives to the problem, including no action. The Corps failed to do this because it failed to consider good conservation as an alternative, therefore the conclusion, that the best alternative is the maximum expansion of Gross reservoir, is invalid.</p> <p>1. Denver Water has not demonstrated a need for the proposed massive expansion of Gross Reservoir. Even if the projected shortfall of 18,000 AF by 2030 is correct, which is doubtful, Denver Water customers have demonstrated in times of drought, that they are capable of conserving water much more effectively than they are today. Right now water use is up 27% over the drought years (a lot of that is for lawns); there is great opportunity for innovative conservation today. We wouldn't be talking about "shortfall" if better conservation practices were in place today. A massive, and destructive, expansion of Gross Reservoir is an over-kill solution and will just encourage poor conservation.</p> <p>FACT: by watering lawns a few minutes less, customers can save 2 billion gallons of water and much more when it rains (9 billion last summer). One billion gallons =3,000 AF.</p> <p>2. In a couple years, water supply and storage will increase significantly when the Rueter-Hess reservoir, (72,000 AF capacity) is finished and Chatfield Reservoir water is reallocated. These supply and storage capacities are not included in the calculations of the 18,000 AF/yr shortfall projected by the computer models used by Denver Water. The calculations are incorrect and therefore the Proposed Action is invalid.</p> <p>3. The "imbalance" between Denver Water's north and south systems is based on the relatively small storage capacity of Gross Reservoir compared to the whole south system. The argument for the huge expansion of Gross Reservoir is that if the two south water treatment plants go down, the north Moffat plant would be unable to supply Denver Water customers. Instead of the "build a bigger dam" approach, with a huge surplus, Denver Water should spend the \$353 million on a system of transporting water to the Moffat Water Treatment Plant in case of emergency. There is plenty of water in the south system, and more to come. The US Army Corps of Engineers should not grant the dam expansion permit and should encourage Denver Water to explore this alternative.</p> <p>4. The "carbon footprint" of the entire project is ignored in the draft Environmental Impact Statement. The US Army Corps of Engineers and FFRC should reject Denver Water's application</p>	<p>Other studies have noted that blasting vibrations could cause a slight agitation of the well water or water in rock fractures near the well to surge, which could cause a temporary suspension of fine grained sediment in the well. For wells very near the blasting, this shaking could cause the well water to appear slightly turbid for a short time until water from the well bore is flushed out. There are no known residences or water wells within 300 feet of the dam. Thus, there would not likely be any effect on water wells in the area due to the blasting needed to raise the dam at Gross Reservoir.</p> <p>Comment #1150-12 (ID 2179): <i>Major Impacts. Traffic in Coal Creek Canyon. There will be haul trucks, lumber trucks and worker vehicles up and down the canyon, over four years. This is a major impact, and is not "temporary." That's like saying, "You will be temporarily sick for four years." FACT: 44-74 haul truck trips/day (260 days a year, 8am-3pm or longer); 202 worker vehicle trips/day.</i></p> <p>Response #1150-12: The CEQ regulations specify that the description of impacts in an EIS should identify how short-term uses of the environment would affect long-term productivity of resources. Short-term (temporary) is defined as the construction period through final reclamation, which is assumed to take up to 5 years. Long-term refers to the period after the Moffat Project is completed and mitigation measures are in place. Transportation impacts were classified at "temporary" since they would occur during the construction period.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>(or permits until this is addressed. It is inexcusable that up to 30,000 trees could be destroyed, tons of carbon put into the atmosphere from destruction of this carbon sink and use of many diesel engines on site, and diesel trucks, and the only concern in the draft EIS is air quality. Loss of trees is a major, permanent impact that is not addressed.</p> <p>5. Projecting a 34,000 AF/yr shortfall by 2030 is misleading. The real shortfall is 18,000 AF/yr since Denver Water accepts that customers will conserve 16,000 a year by 2030. In fact, the projected shortfall of 18,000 AF/yr is also misleading since customers can conserve much more than 16,000 AF/yr. FERC and the Corps, and all the agencies hired to evaluate Denver Waters proposal for expansion of Gross reservoir fail to question the basic assumption upon which the proposed expansion rests – water shortfall. This assumption is not questioned, and neither are the data used to generate the "shortfall." The Corps should require that the data be updated in light of the current economic situation and current growth rate.</p> <p><u>Personal issues</u>, additional reasons to stop the project</p> <p>Don't say home values won't go down – they will. Show me the data.</p> <p>In our area we don't have lawns, and cannot use water outside the house, or even collect it off the roof. In my opinion, Kentucky blue grass belongs in Kentucky.</p> <p>My kids drive to school up and down the canyon, with so much slow, road hogging traffic I will worry about them even more.</p> <p>I use the Canyon public transport van and I am on a schedule; delays will be more than inconvenient.</p> <p>I love to fish on the rivers and streams of the western slope. The increased diversion of water from these beautiful areas, to sprinkle on the lawns of Denver Waters customers is really maddening. I know that there is a better way, called conservation. People in Coal Creek Canyon know what conservation is all about, so it seems unfair that our lifestyle is jeopardized for the sake of Denver Water customers.</p> <p>I was so delighted when Gross Reservoir was finally opened to boaters four years ago. We have a kayak and finally had a place to use it nearby. The managers of Gross Reservoir, FERC and the US Forest Service, and Boulder County as well, were smart in designating it a forest area. If Denver Water succeeds in convincing the US Army Corps of Engineers and FERC that it must have a huge reservoir, that will be the end of boating, fishing and picnicking for a long time. No one would go there to hear the earth-crushing sounds of construction.</p> <p>NOTES:</p> <div style="text-align: right;">  David A. Stewart </div>	<p>Comment #1150-11 (ID 2178): <i>Traffic safety issues are not addressed. The Environmental Impact Statement does not address safety for bicyclists. In the summer, scores of bicyclists ride the canyon for pleasure and training. There is no bicycle lane. The danger to bicyclists by constant haul truck traffic will escalate; there will be deaths. Five enhanced pull-off areas on the highway will not solve this. We also have large groups of motorcyclists in the summer. The risks they will take are frightening to think about. The corner at United Power where all the trucks and vehicles will turn is tight and the community center is just across the highway. This is dangerous. Until these traffic safety issues are addressed and mitigation plans created, FERC and the US Army Corps of Engineers should not grant the permit to Denver Water.</i></p> <p>Response #1150-11: Denver Water met with CDOT regarding establishment of a bike path. However, Denver Water's consultant and CDOT evaluated this option and determined that establishing a bike path would not be feasible due to safety concerns, and space and cost constraints.</p> <p>The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Comment #1150-9 (ID 2177): <i>The destruction from the excavation of a quarry on the edge of the reservoir, which will not be reclaimed, is correctly described as "permanent and major." In all, 30 acres will be destroyed and above water level. This entire project is contrary to the</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>goals of FERC, Boulder County and the National Forest Plan to maintain the land as "forested" and natural.</i></p> <p>Response #1150-9: As described in FEIS Section 2.3.2.1, mitigation for the quarry site includes a range of techniques, such as rock sculpting (shaping the exposed rock to mimic a natural rock face) and selective planting to break up the scale of the exposed area and soften the contrasts with adjacent areas. The use of rock staining would also be considered, provided a determination by Denver Water that its application would not create any water quality concerns. An additional mitigation measure has been added to FEIS Section 5.7.7 to address reclamation of the quarry site. The proposed quarry site and any alternative quarry sites would be located on USFS and Denver Water land. Denver Water would work with the USFS to ensure appropriate revegetation of these sites based on site conditions.</p> <p>Comment #1150-8 (ID 2176): <i>The loss of 20,000+ trees is a major, permanent impact. From an environmental point of view, the fact that the land will be inundated with water is irrelevant. The carbon sink is gone.</i></p> <p>Response #1150-8: Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Greenhouse gas (GHG) emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>Comment #1150-14 (ID 2175): <i>Noise. There is nothing "temporary and minor" about the sound of diesel engines, rock crushing, a cement plant and earth moving equipment, day and night at times, for four years. The Corps draft EIS says "At a distance greater than 50 ft. noise levels diminish rapidly." This is nonsense. At this altitude, sound carries easily through the dry air. We can hear a dog barking a mile away. Most significantly, sound travels upward. The residents all live above the reservoir. For some of us the noise may be muffled, for others it will be obtrusive, but for everyone it will be a constant background annoyance. Some of us live here because we crave the sound of silence and the wind in the trees; that will be gone. The statement by the Corps does not address mitigation of the noise impact. Denver Water should not be permitted to expand the dam until noise mitigation is addressed satisfactorily.</i></p> <p>Response #1150-14: CEQ regulations specify that the description of impacts in an EIS should identify how short-term uses of the environment would affect long-term productivity of resources. Short-term (temporary) is defined as the construction period through final reclamation, which is assumed to take up to 5 years.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Long-term productivity refers to the period after the Moffat Project is completed and mitigation measures are in place. Noise impacts were classified at “temporary” since they would occur during the construction period. On-site construction related noise (e.g., construction machinery) is expected to create a temporary and moderate impact, meaning noise would be readily apparent and have measurable effects of disturbance. Off-site construction related noise (e.g., construction traffic) is expected to create temporary and minor impacts, meaning noise level changes would be slight, but detectable, with some perceptible effects of disturbance.</p> <p>All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the U.S. Environmental Protection Agency (EPA), as summarized in FEIS Table 5.14-1. On-site construction noise may periodically exceed the EPA noise threshold of 70 A-weighted decibel scale (dBA) for public exposure, but the public would not be exposed to these levels on a continuous basis. The noise levels described in the EIS are predicted at distances of less than 50 feet from the source and would be temporary and remote. Sound travels omnidirectionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 decibels (dB).</p> <p>Comment #1150-16 (ID 2174): <i>Quality of life. The “quality of life” of Denver Water customers is repeatedly addressed under the No Action alternative, regarding the supposed hardships of water restrictions during: drought that will ensue if</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>Gross Reservoir is not expanded. Quality of life of those exposed to the construction of the dam, for years, is ignored. Driving in the canyon is already stressful and everything that is stressful about it will be compounded.</i></p> <p>Response #1150-16: Construction-related impacts are addressed in the FEIS. FEIS Section 5.19 provided additional analysis and discussion as appropriate, regarding impacts to communities surrounding Gross Reservoir.</p> <p>Comment #1150-18 (ID 2173): <i>Western slope rivers. The river basins on the western slope that feed Gross Reservoir are already being depleted. Adding 72,000 AF to Gross Reservoir from the western slope is a major impact. If Denver Water focused its resources more on conservation and less on expansion and "what if" scenarios, the western slope rivers and streams could be saved from further diversion. The US Army Corps of Engineers should not permit the reservoir; it should make Denver Water go back to the drawing board with a plan to eliminate the shortfall through conservation.</i></p> <p>Response #1150-18: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1150-15 (ID 2172): <i>Urban sprawl. The City of Arvada (contracted with Denver Water to receive 3,000 AF/yr from the expanded reservoir) and local developers are eagerly waiting to begin developing a large tract near the base of Coal Creek Canyon. Although the Corps is mandated to address growth and development in the Environmental Impact Statement, it fails to do so. This issue must be evaluated before granting a permit to Denver Water.</i></p> <p>Response #1150-15: The Corps analyzed demand in the Project area based on demographic projections from various Federal and local sources. The Corps also independently evaluated the demand projections stated in Denver Water's Integrated Resources Plan (IRP), which would help guide water management over the next 40 years. As stated in DEIS Section 4.14 and FEIS Section 5.16: "Several recent studies have suggested that there is no substantive causal relationship between population growth and the development of water, or vice versa. One such study is summarized as follows:</p> <p>The relationship between water and growth in the modern West is often misunderstood. Historically, it</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>has been assumed that water development was a necessary precursor to growth and, similarly, that a lack of water development could act as a deterrent to growth. While these premises may have been true at one time, recent experience in Colorado and other western states shows both ideas are now unsupportable. To the contrary, many of the regions showing the highest rates of growth in the West – from Douglas County, Colorado to Las Vegas, Nevada – show the opposite trend; growth is actually highest in some of the driest regions. Similarly the veto of the proposed Two Forks Dam on the Front Range by the EPA in 1990 certainly did not deter growth in the Denver Metropolitan area. Examples also suggest that an abundance of water is often insufficient to stimulate growth. The experience of Pueblo is illustrative. (Nichols et al. 2001).</p> <p>Numerous other studies analyzing the relationship between growth and water reach similar conclusions, such as Western Land Use Trends and Policy: Implications for Water Resources (Riebsame 1997); Atlas of the New West (Center of the American West 1997); and Water in the West: The Challenge for the Next Century (Western Water Policy Review Advisory Commission 1998). This growth issue was evaluated and dismissed by the Corps during the NEPA analysis of the Two Forks Dam and Reservoir Project in 1988 – “As a result of including the No Federal Action scenario, the Corps was able to answer a major question then being asked – would growth continue in the Denver Metropolitan area without Federal approval of a major water supply project. The evaluation of the No Federal Action scenario determined that growth would occur regardless of Federal action.” (Corps 1998, Page 3-3 of the FEIS Metropolitan Denver Water Supply EIS, Volume 1.)”</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Independent studies, such as the State-wide Water Supply Initiative, commissioned by the State of Colorado anticipate high growth rates for Colorado, including the East Slope. These high growth rates are likely to occur regardless of what water projects are constructed.</p> <p>Comment #1150-6 (ID 2171): <i>Failure to demonstrate need and other issues: The US Army Corps of Engineers is mandated to examine reasonable, practical and common sense alternatives to the problem, including no action. The Corps failed to do this because it failed to consider good conservation as an alternative, therefore the conclusion, that the best alternative is the maximum expansion of Gross reservoir, is invalid.</i></p> <p>Response #1150-6: Water conservation is part of the solution for water supply projects. The Purpose and Need for the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. This Purpose and Need statement addresses a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This system imbalance leads to vulnerability (or lack of system flexibility) to respond to water collection system outages and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1150-3 (ID 2170): <i>Denver Water has not demonstrated a need for the proposed massive expansion of Gross Reservoir. Even if the projected shortfall of 18,000 AF by 2030 is correct, which is doubtful, Denver Water customers have demonstrated in times of drought, that they are capable of conserving water much more effectively than they are today. Right now water use is up 27% over the drought years (a lot of that is for lawns); there is great opportunity for innovative conservation today. We wouldn't be talking about "shortfall" if better conservation practices were in place today. A massive, and destructive, expansion of Gross Reservoir is an over-kill solution and will just encourage poor conservation. FACT: by watering lawns a few minutes less, customers can save 2 billion gallons of water and much more when it rains (9 billion last summer). One billion gallons = 3,000 AF.</i></p> <p>Response #1150-3: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1150-4 (ID 2169): <i>In a couple years, water supply and storage will increase significantly when the Rueter-Hess reservoir, (72,000 AF capacity) is finished and Chatfield Reservoir water is reallocated. These supply and storage capacities are not included in the calculations of the 18,000 AF/yr shortfall projected by the computer models used by Denver Water. The calculations are incorrect and therefore the Proposed Action is invalid.</i></p> <p>Response #1150-4: The EIS describes the potential cumulative effects that would result from the Moffat Project combined with other projects and activities based on NEPA and Section 404(b)(1) criteria. The regulations for implementing National Environmental Policy Act (NEPA) define cumulative impacts as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions and regardless of what agency (Federal or non-Federal) or person undertakes such other actions. "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 Code of Federal Regulations [CFR] 1508.7). This regulation refers only to the cumulative impact of direct and indirect effects of the Proposed Action and its alternatives when added to the aggregate effects of past, present, and reasonably foreseeable future actions.</p> <p>The Section 404 regulations state that "cumulative impacts are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>water resources and interfere with the productivity and water quality of existing aquatic ecosystems" (40 CFR 230.11[g][1]).</p> <p>The cumulative effects analysis for the Moffat Project evaluated past and present actions that continue to influence existing environmental conditions. The cumulative effects analysis also included reasonably foreseeable actions that, when combined with one of the Project alternatives, result in a cumulative effect on the environment. For purposes of organization of the EIS cumulative effects were evaluated in two timeframes: (1) past or ongoing present actions and (2) future actions. Each of these two timeframes includes a discussion of water-based or land-based actions. The DEIS included a discussion of both the Rueter-Hess Reservoir Project and the Chatfield Reservoir Reallocation Project in DEIS Section 5.3 as part of the cumulative effects analysis. Rueter-Hess Reservoir is not part of Denver Water's Collection System and the reallocation of Chatfield Reservoir would not increase Denver Water's storage in Chatfield Reservoir; therefore neither provides a supply of water to the CSA.</p> <p>Comment #1150-7 (ID 2168): <i>The "imbalance" between Denver Water's north and south systems is based on the relatively small storage capacity of Gross Reservoir compared to the whole south system. The argument for the huge expansion of Gross Reservoir is that if the two south water treatment plants go down, the north Moffat plant would be unable to supply Denver Water customers. Instead of the "build a bigger dam" approach, with a huge surplus, Denver Water should spend the \$353 million on a system of transporting water to the Moffat Water Treatment Plant in case of emergency. There is plenty of water in the south system, and more to come. The US Army Corps of</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>Engineers should not grant the dam expansion permit and should encourage Denver Water to explore this alternative.</i></p> <p>Response #1150-7: Alternatives 4 and 5 incorporate an interconnect between the South System and North System. In addition, portions of Conduit X were included in several alternatives (Alternatives 2, 3, 4, 5, 10c, 10d, 10e, and 11). However, Conduit X in its entirety was not considered in lieu of the South System interconnects included in Alternatives 4 and 5. South System interconnects high in the system from either the North Fork South Platte River at the Roberts Tunnel to the Bear Creek drainage (Alternative 4a) or from Dillon Reservoir to the Clear Creek drainage (Alternative 5) were included in lieu of Conduit X to address the location component of the Purpose and Need statement. New firm yield must be provided to the Moffat Treatment Plant to address reliability, vulnerability, and operational flexibility issues. The lower in the South Platte River system the interconnect is located, the more vulnerable and potentially less reliable Denver Water system is due to unplanned outages, including natural and manmade disasters.</p> <p>Denver Water's Collection System is vulnerable to natural and manmade disasters and system failures because approximately 90% of available reservoir storage and 80% of available water supplies rely on the unimpeded operation of Denver's South System. Loss of operation of any portion of the South System could require more water from the Moffat Collection System to meet customer's water demands.</p> <p>If an interconnect was located downstream of several of Denver Water's critical South System facilities, including Roberts Tunnel, Dillon Reservoir, Eleven Mile Reservoir, Cheesman Reservoir, Antero</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Reservoir. and Strontia Springs Reservoir, Denver Water's system would remain vulnerable to unplanned outages. Loss of operation to these South Platte River facilities could affect the ability to deliver water to a downstream interconnect.</p> <p>In summary, the Purpose and Need of the Project is to add new yield to the Moffat system at the location where it is needed. A connection between the North System and the South System does not meet this Project purpose. Similarly, a South System connection does not help to reduce the imbalance of the system and the vulnerability created by that imbalance. Various alternatives that used the South Platte Basin as a component of an alternative were considered. In addition, these alternatives did not survive the Cost Screen because of the high cost of delivery to the Moffat Collection System.</p> <p>Comment #1150-10 (ID 2167): <i>The "carbon footprint" of the entire project is ignored in the draft Environmental Impact Statement. The US Army Corps of Engineers and FERC should reject Denver Water's application for permits until this is addressed. It is inexcusable that up to 30,000 trees could be destroyed, tons of carbon put into the atmosphere from destruction of this carbon sink and use of many diesel engines on site, and diesel trucks, and the only concern in the draft EIS is air quality. Loss of trees is a major, permanent impact that is not addressed.</i></p> <p>Response #1150-10: Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p> <p>GHG emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>Comment #1150-5 (ID 2166): <i>Projecting a 34,000 AF/yr shortfall by 2030 is misleading. The real shortfall is 18,000 AF/yr since Denver Water accepts that customers will conserve 16,000 a year by 2030. In fact, the projected shortfall of 18,000 AF/yr is also misleading since customers can conserve much more than 16,000 AF/yr. FERC and the Corps, and all the agencies hired to evaluate Denver Waters proposal for expansion of Gross reservoir fail to question the basic assumption upon which the proposed expansion rests - water shortfall. This assumption is not questioned, and neither are the data used to generate the "shortfall." The Corps should require that the data be updated in light of the current economic situation and current growth rate.</i></p> <p>Response #1150-5: Water conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in Table 1-2 of the DEIS and FEIS. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water has been encouraging their customers to use 22% less water than they were consuming before the 2002 drought, by 2016. To date, Denver Water customers are using 18% less water than they were before the 2002 drought.</p> <p>The Corps completed a technical memorandum in 2004 entitled Supplemental Evaluation of Denver Water Demand Projections for the Moffat Project EIS. This document is included in Appendix A of the DEIS. The Purpose and Need for the Moffat Project includes the anticipated amount of water needed to serve customers in Denver and to serve the permanent contracts Denver Water has outside Denver.</p> <p>In 2010, Denver Water updated their water demand projections based on the most recent population and demographic projections available from the Denver Regional Council of Governments (DRCOG),</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Colorado State Demographer's Office and other relevant sources of demographic data. The Corps has independently evaluated the projections and found them reasonable for use in the FEIS.</p> <p>Comment #1150-17 (ID 2165): <i>Personal issues, additional reasons to stop the project Don't say home values won't go down - they will. Show me the data.</i></p> <p>Response #1150-17: An expanded analysis of impacts to communities surrounding Gross Reservoir was included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Comment #1150-20 (ID 2164): <i>In our area we don't have lawns, and cannot use water outside the house, or even collect it off the roof. In my opinion, Kentucky blue grass belongs in Kentucky.</i></p> <p>Response #1150-20: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted).</p> <p>Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1150-13 (ID 2163): <i>My kids drive to school up and down the canyon, with so much slow, road hogging traffic I will worry about them even more. I use the Canyon public transport van and I am on a schedule; delays will be more than inconvenient.</i></p> <p>Response #1150-13: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1150-19 (ID 2162): <i>I love to fish on the rivers and streams of the western slope. The increased diversion of water from these beautiful areas, to sprinkle on the lawns of Denver Waters customers is really maddening. I know that there is a better way, called conservation. People in Coal Creek Canyon know what conservation is all about, so it seems unfair that our lifestyle is jeopardized for the sake of Denver Water customers.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1150-19: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1150-2 (ID 2161): <i>I was so delighted when Gross Reservoir was finally opened to boaters four years ago. We have a kayak and finally had a place to use it nearby. The managers of Gross Reservoir, FERC and the US Forest Service, and Boulder County as well, were smart in designating it a forest area. If Denver Water succeeds in convincing the US Army Corps of Engineers and FERC that it must have a huge reservoir, that will be the end of boating, fishing and picnicking for a long time. No one would go there to hear the earth-crushing sounds of construction.</i></p> <p>Response #1150-2: For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. The Corps may include a permit condition for noise abatement as part of the Public Interest Review for a Section 404 Permit. Denver Water would comply with all applicable noise ordinances and work with Boulder County to identify reasonable and feasible noise abatement measures for the Project construction period.</p>

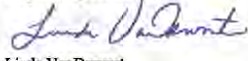
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1151 Linda VanDervort</p>	<p>February 20, 2010</p> <p>To Whom It May Concern:</p> <p>I live in Coal Creek Canyon and will be dramatically impacted by the proposed expansion of Gross Reservoir. Therefore, I have looked at the draft EIS for the project and find many deficiencies including the following:</p> <ol style="list-style-type: none"> Traffic Impact and Safety. The EIS says that construction-related traffic would have "negligible impact" on the operating conditions of the roadways affected, but offers no detailed traffic study to support this claim. I drive on those roads every day and can tell you that there will be a large impact not only to car traffic delayed behind so many projected creeping haul trucks (44-74 truck trips a day for several years) but also it will impact bicycles and motorcycles. The report also fails to quantify the additional trucks hauling logs and slash and construction equipment that will also populate our winding (and often snowy) mountain roads day-in and day-out. There are major safety issues involved because there are many curves where large trucks will not be able to stay within the yellow lines. I understand that the original Gross Reservoir was built using the railroad and that a spur already exists to the dam. Even though this might be more expensive that is no excuse for not seriously considering this method given that the selected alternative is said to be \$164 million dollars cheaper than other alternatives. Using rail would not only reduce traffic tie-ups but also reduce air pollution and noise pollution that comes from truck traffic going up steep grades. Noise. The EIS made an arbitrary statement when it said that "at a distance greater than 50 feet noise levels diminish rapidly". This is just not true at the higher altitude of this project. We can hear a dog bark a mile away. Also sound travels upward and the area residents and visitors will all be above the construction site and subject to the noise of diesel engines, rock crushing, a cement plant and earth moving equipment, day and night, for four years. Quarry. The destruction from the excavation of a quarry on the edge of the reservoir, which will not be reclaimed, is correctly described as "permanent and major". Thirty acres will be destroyed and above water level. Several years ago a quarry was proposed in our area and was successfully defeated. Now, how can the Denver Water Board build another quarry in the name of water and slide under all the hurdles the other proposed quarries had to jump over? For one thing, the EIS says the proposed alternative has negligible visual impact. That is just not true as quarries are known eyesores. The EIS just does not go into enough detail to fully disclose the quarry's impacts. Why don't they have to reclaim the quarry when finished? The land will be permanently scarred. Urban Sprawl. I believe the Denver Water Board is deceptive in its promotion of this expansion project. It implies that all the additional water is needed in case of future droughts and problems in the overall system and says it will not be for 	<p>Comment #1151-1 (ID 2190): <i>I live in Coal Creek Canyon and will be dramatically impacted by the proposed expansion of Gross Reservoir. Therefore, I have looked at the draft EIS for the project and find many deficiencies including the following.</i></p> <p>Response #1151-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1151-4 (ID 2189): <i>Traffic Impact and Safety. The EIS says that construction-related traffic would have "negligible impact" on the operating conditions of the roadways affected, but offers no detailed traffic study to support this claim. I drive on those roads every day and can tell you that there will be a large impact not only to car traffic delayed behind so many projected creeping haul trucks (44-74 truck trips a day for several years) but also it will impact bicycles and motorcycles. The report also fails to quantify the additional trucks hauling logs and slash and construction equipment that will also populate our winding (and often snowy) mountain roads day-in and day-out. There are major safety issues involved because there are many curves where large trucks will not be able to stay within the yellow lines. I understand that the original Gross Reservoir was built using the railroad and that a spur already exists to the dam. Even though this might be more expensive that is no excuse for not seriously considering this method given that the selected alternative is said to be \$164 million dollars cheaper than other alternatives. Using rail would not only reduce traffic tie-ups but also reduce air pollution and noise pollution that comes from truck traffic going up steep grades.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>future development. However, we know that is not true. Arvada has 2 new planned developments near the base of Coal Creek Canyon just waiting for the needed water in order to proceed with building. One development will be in the mountain backdrop area and have 90 houses. The other will have about around 700 houses and large commercial buildings. Arvada has already contracted with Denver for additional water from the Moffat project in order to support the new development. The water will also be used in other Jefferson County development projects in the north area. If the water is not made available then the development will not occur. The Corps is mandated to address growth and development in the EIS and does not address this development. It does not address the environmental impact of additional development encouraged by the Moffat project and other pending Denver Water projects, including the impacts on transportation infrastructure and air quality that would result from the large increase in population and urbanization. If the Moffat project is permitted it will direct growth away from the infill and redevelopment neighborhoods where most people live closer to where they work, where they would be served by adequate public transportation and where demand for water per capita tends to be less.</p> <p>5. Western Slope Water. The river basins on the western slope that feed Gross Reservoir are already being depleted. Adding 72,000 AF to Gross Reservoir from the western slope is a major impact and is not thoroughly investigated in the EIS. The EIS needs to adequately address potential impacts to water quality on the Fraser River and throughout the Colorado River Basin.</p> <p>6. Ecological Degradation. Removing 20,000-40,000 trees should not be done lightly. As everyone deplors the loss of Colorado forests to the mountain pine beetle how can we allow so many healthy trees to be cut down? Shouldn't the carbon footprint of removing so many trees be part of the EIS? The forest around Gross Reservoir is part of a greater forest that includes U.S. Forest Service land. This land is used by an elk herd as well as numerous other mammals and birds. Do we really want to trade a large forest for lawns? The tree removal plan, particularly post forestry activities to restore roads after tree removal and to remove/restore access points, needs further detail. There is often a problem after tree removal with unauthorized access by off-road vehicles on "roads" built to accommodate tree-removal equipment. There also needs to be a discussion of all the land that will be inundated along South Boulder Creek with the increase in the dam size as well as the destruction of several wetland and riparian areas which are so crucial to the Front Range. There will be a large impact on the fish population as well as an impact on visitors to the area's forests. There will be great damage to views as well.</p> <p>7. Need Projections and Assumptions are Faulty. The data and assumptions used to project the need are faulty which makes the foundation upon which the entire project rests weak. The projected shortfall of 18,000 acre feet/year is questionable. The EIS does not discuss the frequency with which shortages might occur or the size of those shortages if the project is not built. The EIS misleads</p>	<p>Response #1151-4: Denver Water hired an independent consultant to evaluate using the railroad to transport material to the site. The consultant found that using the railroad would not be feasible for the Project because of the technical, logistical, topographical and cost problems associated with unloading material at the existing railroad siding. Based on discussions with Union Pacific Railroad (UPRR), the consultant determined that new infrastructure would need to be constructed to accommodate the rail cars and avoid conflicts with the coal train traffic on the mainline; handle unloading of the various materials into trucks, which would be needed to transport the material to the dam site; and avoid conflicts with traffic on Gross Dam Road. A new siding would be very difficult and expensive (approximately \$20 million) to construct due to the constraints of the existing topography and would require a significant amount of material to be hauled to the siding by truck on SH 72.</p> <p>Comment #1151-5 (ID 2188): <i>Noise. The EIS made an arbitrary statement when it said that "at a distance greater than 50 feet noise levels diminish rapidly". This is just not true at the higher altitude of this project. We can hear a dog bark a mile away. Also sound travels upward and the area residents and visitors will all be above the construction site and subject to the noise of diesel engines, rock crushing, a cement plant and earth moving equipment, day and night, for four years.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>the reader to believe that if the Moffat Project is not built, starting in 2030, there will be an 18,000 acre foot water shortage every year. Other experts say that that sort of shortage would probably occur no more often than one year out of any given fifty year period. The shortages would be smaller in less severe droughts and in non-drought years, there will be a surplus. Since an 18,000 acre foot shortage is only about 5% of projected demand, the small shortfall could be easily accommodated by simply watering landscaping less frequently as happened in Denver in 2002. It seems much more reasonable to cut back on watering very occasionally than inflicting the serious damage to our environment that would occur if Gross Dam is enlarged.</p> <p>8. Conservation increased. Innovative conservation as the best reasonable and common sense alternative was not considered. Also not considered is the lack of conservation in Denver suburbs who get a large percentage of Denver's water (and who have the larger lawns). There should be greater conservation measures and enforcement of those measures in the suburbs such as Arvada.</p> <p>Respectfully submitted,</p>  <p>Linda VanDervort</p> <div style="background-color: black; width: 150px; height: 20px; margin-top: 5px;"></div> <div style="background-color: black; width: 100px; height: 20px; margin-top: 5px;"></div>	<p>Response #1151-5:</p> <p>The noise levels described in the EIS are predicted at distances of less than 50 feet from the source and would be temporary and remote. It is true that noise would travel greater distances from a source of sound at higher elevations due to lack of ground absorption. Sound travels omni-directionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 dB.</p> <p>All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1.</p> <p>Comment #1151-9 (ID 2187):</p> <p><i>Quarry. The destruction from the excavation of a quarry on the edge of the reservoir, which will not be reclaimed, is correctly described as "permanent and major". Thirty acres will be destroyed and above water level. Several years ago a quarry was proposed in our area and was successfully defeated. Now, how can the Denver Water Board build another quarry in the name of water and slide under all the hurdles the other proposed quarries had to jump over? For one thing, the EIS says the proposed alternative has negligible visual impact. That is just not true as quarries are known eyesores. The EIS just does not go into enough detail to fully disclose the quarry's impacts. Why don't they have to reclaim the quarry when finished? The land will be permanently scarred.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1151-9: The location of the quarry is illustrated on DEIS Figure 2-3 and details regarding the operation of the quarry are provided in DEIS Section 2.3. Visual impacts from the quarry at Gross Reservoir are discussed in DEIS Section 4.15.1. An additional mitigation measure has been added to FEIS Section 5.17 to address reclamation of the quarry site. The proposed quarry site would be primarily located on USFS land and therefore Denver Water would work closely with the USFS to ensure appropriate reclamation of this site and any alternative quarry sites.</p> <p>Comment #1151-6 (ID 2186): <i>Urban Sprawl. I believe the Denver Water Board is deceptive in its promotion of this expansion project. It implies that all the additional water is needed in case of future droughts and problems in the overall system and says it will not be for future development. However, we know that is not true. Arvada has 2 new planned developments near the base of Coal Creek Canyon just waiting for the needed water in order to proceed with building. One development will be in the mountain backdrop area and have 90 houses. The other will have about around 700 houses and large commercial buildings. Arvada has already contracted with Denver for additional water from the Moffat project in order to support the new development. The water will also be used in other Jefferson County development projects in the north area. If the water is not made available then the development will not occur. The Corps is mandated to address growth and development in the EIS and does not address this development. It does not address the environmental impact of additional development encouraged by the Moffat project and other pending Denver Water projects, including the impacts on transportation infrastructure and air quality that would result from</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>the large increase in population and urbanization. If the Moffat project is permitted it will direct growth away from the infill and redevelopment neighborhoods where most people live closer to where they work, where they would be served by adequate public transportation and where demand for water per capita tends to be less.</i></p> <p>Response #1151-6: The Corps analyzed demand in the Project area based on demographic projections from various Federal and local sources. The Corps also independently evaluated the demand projections stated in Denver Water's IRP, which would help guide water management over the next 40 years. As stated in DEIS Section 4.14 and FEIS Section 5.16: "Several recent studies have suggested that there is no substantive causal relationship between population growth and the development of water, or vice versa. One such study is summarized as follows:</p> <p>The relationship between water and growth in the modern West is often misunderstood. Historically, it has been assumed that water development was a necessary precursor to growth and, similarly, that a lack of water development could act as a deterrent to growth. While these premises may have been true at one time, recent experience in Colorado and other western states shows both ideas are now unsupportable. To the contrary, many of the regions showing the highest rates of growth in the West – from Douglas County, Colorado to Las Vegas, Nevada – show the opposite trend; growth is actually highest in some of the driest regions. Similarly the veto of the proposed Two Forks Dam on the East Slope by the EPA in 1990 certainly did not deter growth in the Denver Metropolitan area. Examples also suggest that an abundance of water is often insufficient to stimulate growth. The</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>experience of Pueblo is illustrative. (Nichols et al. 2001).</p> <p>Numerous other studies analyzing the relationship between growth and water reach similar conclusions, such as Western Land Use Trends and Policy: Implications for Water Resources (Riebsame 1997); Atlas of the New West (Center of the American West 1997); and Water in the West: The Challenge for the Next Century (Western Water Policy Review Advisory Commission 1998). This growth issue was evaluated and dismissed by the Corps during the NEPA analysis of the Two Forks Dam and Reservoir Project in 1988 – “As a result of including the No Federal Action scenario, the Corps was able to answer a major question then being asked – would growth continue in the Denver Metropolitan area without Federal approval of a major water supply project. The evaluation of the No Federal Action scenario determined that growth would occur regardless of Federal action.” (Corps 1998, Page 3-3 of the FEIS Metropolitan Denver Water Supply EIS, Volume 1.)”</p> <p>Independent studies, such as the State-wide Water Supply Initiative, commissioned by the State of Colorado anticipate high growth rates for Colorado, including the East Slope. These high growth rates are likely to occur regardless of what water projects are constructed.</p> <p>If a project is not developed (No Action Alternative), Denver Water does not have an obligation to provide Arvada with up to 3,000 AF/yr. However, Arvada would still have this demand to be met without an identified supply. Therefore, the Corps believes it is a reasonable and conservative approach to include the 3,000 AF/yr in the predicted 2032 demand in the analysis.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1151-8 (ID 2185): <i>Western Slope Water. The river basins on the western slope that feed Gross Reservoir are already being depleted. Adding 72,000 AF to Gross Reservoir from the western slope is a major impact and is not thoroughly investigated in the EIS. The EIS needs to adequately address potential impacts to water quality on the Fraser River and throughout the Colorado River Basin.</i></p> <p>Response #1151-8: Additional water quality analysis has been performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1151-3 (ID 2184): <i>Ecological Degradation. Removing 20,000-40,000 trees should not be done lightly. As everyone deplores the loss of Colorado forests to the mountain pine beetle how can we allow so many healthy trees to be cut down? Shouldn't the carbon footprint of removing so many trees be part of the EIS? The forest around Gross Reservoir is part of a greater forest that includes U.S. Forest Service land. This land is used by an elk herd as well as numerous other mammals and birds. Do we really want to trade a large forest for lawns? The tree removal plan, particularly post forestry activities to restore roads after tree removal and to remove/restore access points, needs further detail. There is often a problem after tree removal with unauthorized access by off-road vehicles on "roads" built to accommodate tree-removal equipment. There also needs to be a discussion of all the land that will be inundated along South Boulder Creek with the increase in the dam size as well as the destruction of several wetland and riparian areas which are so crucial to the Front Range. There will be a large impact on the fish population as well as an impact on visitors to the area's forests. There will</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>be great damage to views as well.</i></p> <p>Response #1151-3: Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p> <p>GHG emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>Denver Water would work with the USFS to ensure that forest clearing, revegetation and closure of temporary access roads would be consistent with USFS management, including prevention of unauthorized access by off-road vehicles. The impacts from inundation and impacts to wetlands and riparian areas at Gross Reservoir were presented in the DEIS Vegetation, Wildlife, and Riparian sections (DEIS Sections 4.5, 4.7, and 4.6). Impacts to visual resources at Gross Reservoir, including a visual simulation, were provided in DEIS Sections 4.15 and impacts to Aquatic Resources were provided in DEIS Sections 4-9.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1151-2 (ID 2183): <i>Need Projections and Assumptions are Faulty. The data and assumptions used to project the need are faulty which makes the foundation upon which the entire project rests weak. The projected shortfall of 18,000 acre feet/year is questionable. The EIS does not discuss the frequency with which shortages might occur or the size of those shortages if the project is not built. The EIS misleads the reader to believe that if the Moffat Project is not built, starting in 2030, there will be an 18,000 acre foot water shortage every year. Other experts say that that sort of shortage would probably occur no more often than one year out of any given fifty year period. The shortages would be smaller in less severe droughts and in non-drought years, there will be a surplus. Since an 18,000 acre feet shortage is only about 5% of projected demand, the small shortfall could be easily accommodated by simply watering landscaping less frequently as happened in Denver in 2002. It seems much more reasonable to cut back on watering very occasionally than inflicting the serious damage to our environment that would occur if Gross Dam is enlarged.</i></p> <p>Response #1151-2: The Corps completed a technical memorandum in 2004 entitled Supplemental Evaluation of Denver Water Demand Projections for the Moffat Project EIS. This document is included in FEIS Appendix A. The Purpose and Need for the Moffat Project includes the anticipated amount of water needed to serve customers in Denver and to serve the permanent contracts Denver Water has outside Denver.</p> <p>In 2010, Denver Water updated its water demand projections based on the most recent population and demographic projections available from DRCOG, the Colorado State Demographer's Office, and other</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>relevant sources of demographic data. The Corps has independently evaluated the updated projections and found them reasonable for use in the FEIS.</p> <p>Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Modeling water supply and annual firm yield on the basis of unrestricted demand purposefully excludes consideration of drought response plans for several reasons. Drought responses are primarily intended</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>to respond to droughts of unknown duration and severity, unexpected emergencies and infrastructure failure. Unlike the Strategic Water Reserve which is a supply side solution, drought response is a demand side device designed to quickly bring demand down in response to reduced supply. Drought response is temporary in nature and inherently uncertain, driven by immediate conditions. Modeling water supply and firm yield assumes a perfectly operating system over a long period of time. This is a widely accepted approach for evaluating a water utility's ability to meet needs under varying hydrologic conditions, while preserving management's prerogative to deploy drought response as circumstances require. Implementing mandatory drought restrictions to reduce demand does not result in a 'no shortage of supply' situation. The drought events during 2002 demonstrate that is not the case. There is a current need for new firm yield even with mandatory restrictions imposed during a drought as discussed in DEIS Section 1.4.4.1.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1151-7 (ID 2182): <i>Conservation increased. Innovative conservation as the best reasonable and common sense alternative was not considered. Also not considered is the lack of conservation in Denver suburbs who get a large percentage of Denver's water (and who have the larger lawns). There should be greater conservation measures and enforcement of those measures in the suburbs such as Arvada.</i></p> <p>Response #1151-7: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water</p>



Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought. Arvada submitted a conservation plan to the State of Colorado and it was approved in September of 2012.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1152 David Waddington</p>	<div style="text-align: center;">  <p>22 February 2010</p> </div> <p>U.S. Army Corps of Engineers Attn: Scott Franklin 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin,</p> <p>I request that the Corps of Engineers deny the application NWO-2002-80762-DEN by Denver Water to raise the height of gross dam and to increase the storage area above it. I am a resident of Coal Creek Canyon and feel that the proposed construction and the resulting dam will materially degrade my home and the way of life for which I moved to the canyon. "No Action" is my preferred alternative.</p> <p>The size of a project has a direct relation to its environmental impact. What effort has been made to determine the real requirements of Denver Water? They say 18,000 Acre Feet (AF) and yet ask for storage of 72,000 AF. Why do they need a four to one safety factor? Would not a two to one factor provide enough water? There are, according to web data, ten public golf courses in Denver, seven private golf courses and one hundred thirty-five outdoor parks. Some few of these use recycled water. Alternatives 6 and 7 only consider making reusable water into potable. What effort has been made to increase the number of sites using recycled water? Table 2.7 shows estimated renewable water based on computer simulations. Data should come from measured amounts pumped into the South Platte River. Other than timed watering of lawns, what efforts have been made to promote water saving by xeriscaping or other forms of water economy? Finally, what is needed as contrasted to wanted?</p> <p>It is questioned what requirements were imposed upon the writers of the DEIS. It appears that the directions were, "Make the study results define Gross Dam" as the only solution. Section 1.2 specifically points in this direction. This is particularly evidenced by the final selection, listed in the executive summary of the best of six in which Gross Dam is a part of every one of the five choices with no action the sixth.</p> <p>All of the selections listed in table 2.4 are based on providing 72,000 AF and yet there is no firm requirement for that much. For example, alternative 1c1 provides 37,000AF by the Leyden reservoir. This is over the two times the estimated requirement which in itself has not been proven. I believe this approach would be far cheaper than any construction at Gross Reservoir. The DEIS shows studies for a 28,000 AF Gross Dam, alternative 3a, and a Leyden 37,000 AF dam, alternative 1c1. I would like to see an itemized cost data comparison of these two dams, even though they are not quite the same size.</p> <p>I would also like to know why the Leyden dam shown in Figure 2.7 is not to use the rock outcrop as part of the dam as was planned a number of years ago. Highway 93 could be routed on the east side of the outcrop. Why was Leyden downgraded as shown in table 2.7. I agree there is a small lake in existence, but replacing it with a reservoir is certainly not a loss of wetlands or riparian habitat.</p>	<p>Comment #1152-1 (ID 2207): <i>I request that the Corps of Engineers deny the application NWO-2002-80762-DEN by Denver Water to raise the height of gross dam and to increase the storage area above it. I am a resident of Coal Creek Canyon and feel that the proposed construction and the resulting dam will materially degrade my home and the way of life for which I moved to the canyon. "No Action" is my preferred alternative.</i></p> <p>Response #1152-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1152-2 (ID 2206): <i>The size of a project has a direct relation to its environmental impact. What effort has been made to determine the real requirements of Denver Water? They say 18,000 Acre Feet (AF) and yet ask for storage of 72,000 AF. Why do they need a four to one safety factor? Would not a two to one factor provide enough water? There are, according to web data, ten public golf courses in Denver, seven private golf courses and one hundred thirty-five outdoor parks. Some few of these use recycled water. Alternatives 6 and 7 only consider making reusable water into potable. What effort has been made to increase the number of sites using recycled water? Table 2.7 shows estimated renewable water based op, computer simulations. Data should come from measured amounts pumped into the South Platte River. Other than timed watering of lawns, what efforts have been made to promote water saving by xeriscaping or other forms of water economy? Finally, what is needed as contrasted to wanted?</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>I have been active for fifteen years in protecting the view of the mountain background west of Colorado 93 from development. A water reflective surface from a Feyden Dam would be an addition, not a detractor.</p> <p>Traffic created by Gross Dam construction would provide a major environmental impact on the residents of Coal Creek Canyon. During construction, it has been stated, there will be between 44 and 74 hauling trucks coming up our canyon Hwy. Colorado 72, per day. Added to this are 200 worker vehicles. These vehicles also have to go back down, doubling the traffic. The road has about twenty curves in which the direction of travel changes by an estimated thirty degrees. Some of the curves are sharp enough that a long tractor-trailer will cross over the center line to turn the corner. It was stated that there would be five passing turnouts built along the canyon road to facilitate traffic movement. It cannot be expected that the driver of a semi with a heavy load will pull into a turnout losing his momentum, just to let cars pass. This heavy traffic will endanger those of us who travel Colorado 72, will definitely impede our passage up and down the canyon, and will degrade the road, incurring county expense for repair and maintenance.</p> <p>Noise is an environmental concern to Canyon residents. Not only will we hear all the trucks moving up and down through our area, we will hear the sounds of heavy machinery in operation and frequently the sounds of blasting. There are many trains traveling close to the Gross dam site and we often hear the sound of the trains as well as the whistle warnings. As residents, we do not want these noises to increase.</p> <p>The destruction of 20,000 trees is of major environmental impact in these times of global warming because of the loss of the carbon dioxide sink. If the trees are burned on site, it will definitely increase the carbon dioxide in the atmosphere. If the trees are carried to a landfill and buried, there is the transportation and burial cost, noise, and pollution, as well as highway congestion. As buried biomass decomposes, it creates methane gas, a much worse global warming contributor than carbon dioxide. This is not evaluated in the DEIS.</p> <p>Respectfully submitted,  David Waddington </p>	<p>Response #1152-2: Denver Water's firm yield and its system storage to firm ratio of 4:1 were estimated using PACSM. The study period used in PACSM extends 45 years from 1947 through 1991 and includes Denver Water's critical drought period from 1953 through 1957. The critical drought period is the time span from the last time the storage reservoirs are full to the time all reservoir water is completely depleted and the reservoirs begin to refill. Denver Water's firm yield was determined to be 345,000 AF/yr (not including the 30,000-AF Strategic Water Reserve) based on implementation of the non-potable recycling project, system refinements, and cooperative projects that Denver Water assumes would be fully implemented in the near-future. At this level of demand, PACSM results show that Denver Water's reservoirs were essentially full at the start of the critical drought period in 1953 and empty in April 1957 without causing any shortfall in meeting demand. Based on the total storage in Denver Water's system, its overall storage to firm yield ratio was estimated to be approximately 4:1. Four years is approximately the length of the critical period in Denver Water's PACSM simulation period; therefore, new reservoir storage must supply a firm yield over a 4-year period (a 4:1 storage-to-firm yield ratio). For example, the Proposed Action requires 72,000 AF of storage at Gross Reservoir (4 times 18,000 AF of firm yield). The storage required for the Proposed Action is estimated based on storage of surface water available from existing Denver Water rights for the Moffat Collection System. While a useful rule of thumb for storage in the Moffat Collection System, this ratio is sensitive to the location of storage within Denver Water's system and the source of supply and cannot be universally applied to other portions of Denver Water's system or to other water systems. The storage to firm ratio was adequately analyzed using PACSM.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>The alternative screening process (Alternatives Screening Report, Corps 2007) did consider the other water sources (agricultural water transfer, conjunctive use and municipal reuse) in combination with storage components other than Gross Reservoir. These various water sources and 29 storage components from the “long list” passed the initial Screen 1A, as discussed in DEIS Section 2.1.2, Screen 1B. Two methods of acquiring agricultural water (ID 601) were reviewed: purchase or dry-year lease. It was assumed that the agricultural rights were available downstream of the Metro WWTP. Other locations, including the Arkansas River Basin, were considered in Screen 1A; however, they were eliminated by the criterion</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>LG1, “Must be within the State of Colorado and in the South Platte and Mainstem Colorado River Basins.” The justification for this criterion, as stated in DEIS Table 2-1, is still valid: “Exploring options outside the South Platte and mainstem Colorado river basins would necessitate acquiring water rights from new filings, purchasing and transferring existing water rights, and developing extensive new infrastructure to import the water. Obtaining water from the Gunnison, Yampa, White, North Platte, Rio Grande, San Juan/Dolores, or Arkansas river basins would be extremely difficult, if not impossible, in a timeframe consistent with the Purpose and Need.” This is also a reasonable criterion to use because it did not eliminate a significant number of the water source options being considered in the screening. Numerous alternatives were configured in Screen 1b that do not include expansion of Gross Reservoir. Leyden Gulch Reservoir, plus several other storage components such as Ralston Reservoir, Spring Creek Reservoir, and Box Elder shallow aquifer were used to configure Project alternatives. Refer to Alternatives 6a and 6b, 7a and 7b, 8b, 9a and 9b, 10b – 10e, 11a, 12a, and 13b in DEIS Table 2-4. Each of these alternatives was legitimately screened out in Screen 1c or Screen 2 for various reasons. The multi-step process of screening a variety of water sources other than Moffat Tunnel water and storage components other than enlarging Gross Reservoir is justified and well-documented.</p> <p>Currently Denver Water meets approximately 8,000 AF/yr of its demand with the existing re-use plant. As shown in FEIS Table 1-1, Denver Water plans to meet 17,500 AF/yr of its demand from the reuse plant.</p> <p>DEIS Table 2-7 shows the “Screen 2 Comparative Ranking Summary.” Denver Water’s PACSM estimates reusable return flows to the South Platte</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>River based on the season and percentage of water used for outdoor irrigation. These return flows are accounted for at the Bi-City WWTP, Metro WWTP, and lawn irrigation return flows.</p> <p>Comment #1152-3 (ID 2205): <i>It is questioned what requirements were imposed upon the writers of the DEIS. It appears that the directions were, "Make the study results define Gross Dam" as the only solution. Section 1.2 specifically points in this direction This is particularly evidenced by the final selection, listed in the executive summary of the best of six in which Gross Dam is a part of every one of the five choices with no action the sixth.</i></p> <p>Response #1152-3: The alternative screening process (Alternatives Screening Report, Corps 2007) did consider the other water sources (agricultural water transfer, conjunctive use and municipal reuse) in combination with storage components other than Gross Reservoir. These various water sources and 29 storage components from the "long list" passed the initial Screen 1A, as discussed in DEIS Section 2.1.2, Screen 1B. Two methods of acquiring agricultural water (ID 601) were reviewed: purchase or dry-year lease. It was assumed that the agricultural rights were available downstream of the Metro WWTP. Other locations, including the Arkansas River Basin, were considered in Screen 1A; however, they were eliminated by the criterion LG1 (Logistics – Geographic Location), must be within the State of Colorado and in the South Platte and mainstem Colorado River basins. The justification for this criterion, as stated in Table 2-1, is still valid: "Exploring options outside the South Platte and mainstem Colorado river basins would necessitate acquiring water rights from new filings, purchasing and transferring existing water rights,</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>and developing extensive new infrastructure to import the water. Obtaining water from the Gunnison, Yampa, White, North Platte, Rio Grande, San Juan/Dolores, or Arkansas river basins would be extremely difficult, if not impossible, in a timeframe consistent with the Purpose and Need." This is also a reasonable criterion to use because it did not eliminate a significant number of the water source options being considered in the screening. Numerous alternatives were configured in Screen 1b that do not include expansion of Gross Reservoir. Leyden Gulch Reservoir, plus several other storage components such as Ralston Reservoir, Spring Creek Reservoir, and Box Elder shallow aquifer were used to configure Project alternatives. Refer to Alternatives 6a and 6b, 7a and 7b, 8b, 9a and 9b, 10b–10e, 11a, 12a, and 13b in Table 2-4. Each of these alternatives was legitimately screened out in Screen 1c or Screen 2 for various reasons. The multi-step process of screening a variety of water sources other than Moffat Tunnel water and storage components other than enlarging Gross Reservoir is justified and well-documented.</p> <p>Comment #1152-4 (ID 2204): <i>All of the selections listed in table 2.4 are based on providing 72,000 AF and yet there is no firm requirement for that much. For example, alternative 1c1 provides 37,000 AF by the Leyden reservoir. This is over the two times the estimated requirement which in itself has not been proven. I believe this approach would be far cheaper than any construction at Gross Reservoir. The DEIS shows studies for a 28,000 AF Gross Dam, Alternative 3a, and a Leyden 37,000 AF dam, Alternative 1c1. I would like to see an itemized cost data comparison of these two dams, even though they are not quite the same size.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1152-4: Alternative 3a consisted of a new South Fork Reservoir (12,000 AF), new Soda Creek Reservoir (32,000 AF), and a Gross Reservoir enlargement (28,000 AF) for a combined storage amount of 72,000 AF. This alternative was screened out due to impacts perennial streams and the aquatic habitat, impacts to critical wildlife habitat and the high potential for occurrence of Federally listed endangered species. Alternative 1c1 consisted of a new Sixmile Canyon Reservoir (35,000 AF) and Leyden Gulch Reservoir (37,000 AF) for a combined storage amount of 72,000 AF. This alternative was primarily screened out to due to wetland impacts.</p> <p>Denver Water's firm yield and its system storage to firm ratio of 4:1 were estimated using PACSM. The study period used in PACSM extends 45 years from 1947 through 1991 and includes Denver Water's critical drought period from 1953 through 1957. The critical drought period is the time span from the last time the storage reservoirs are full to the time all reservoir water is completely depleted and the reservoirs begin to refill. Denver Water's firm yield was determined to be 345,000 AF/yr (not including the 30,000-AF Strategic Water Reserve) based on implementation of the non-potable recycling project, system refinements, and cooperative projects that Denver Water assumes would be fully implemented in the near-future. At this level of demand, PACSM results show that Denver Water's reservoirs were essentially full at the start of the critical drought period in 1953 and empty in April 1957 without causing any shortfall in meeting demand. Based on the total storage in Denver Water's system, its overall storage to firm yield ratio was estimated to be approximately 4:1. Four years is approximately the length of the critical period in Denver Water's PACSM simulation period; therefore, new reservoir storage must supply a firm yield over a 4-year period</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>(a 4:1 storage-to-firm yield ratio). For example, the Proposed Action requires 72,000 AF storage at Gross Reservoir (4 x 18,000 AF firm yield). The storage required for the Proposed Action is estimated based on storage of surface water available from existing Denver Water rights for the Moffat Collection System. While a useful rule of thumb for storage in the Moffat Collection System, this ratio is sensitive to the location of the storage within Denver Water's system and the source of supply and cannot be universally applied to other portions of Denver Water's system or to other water systems. The storage to firm ratio was adequately analyzed using PACSM.</p> <p>Comment #1152-5 (ID 2203): <i>I would also like to know why the Leyden dam shown in Figure 2.7 is not to use the rock outcrop as part of the dam as was planned a number of years ago. Highway 93 could be routed on the east side of the outcrop. Why was Leyden downgraded as shown in Table 2.7. I agree there is a small lake in existence, but replacing it with a reservoir is certainly not a loss of wetlands or riparian habitat.</i></p> <p>Response #1152-5: Alternative 1c was re-configured with different reservoir sizes based on feasibility level engineering analysis and an assessment of environmental constraints, primarily wetland habitat. Alternative 1c was finalized with an enlarged Gross Reservoir (additional 40,700 AF) and new Leyden Gulch Reservoir (31,300 AF).</p> <p>Comment #1152-6 (ID 2202): <i>I have been active for fifteen years in protecting the view of the mountain background west of Colorado 93 from development. A water reflective surface from a Leyden Dam would be an addition, not a detractor.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1152-6: This is noted in Section 4.15.2.2 of the DEIS.</p> <p>Comment #1152-7 (ID 2201): <i>Traffic created by Gross Dam construction would provide a major environmental impact on the residents of Coal Creek Canyon. During construction, it has been stated, there will be between 44 and 74 hauling trucks coming up our canyon Hwy. Colorado 72, per day. Added to this are 200 worker vehicles. These vehicles also have to go back down, doubling the traffic. The road has about twenty curves in which the direction of travel changes by an estimated thirty degrees. Some of the curves are sharp enough that a long tractor-trailer will cross over the center line to turn the corner. It was stated that there would be five passing turnouts built along the canyon road to facilitate traffic movement. It cannot be expected that the driver of a semi with a heavy load will pull into a turnout losing his momentum, just to let cars pass. This heavy traffic will endanger those of us who travel Colorado 72, will definitely impede our passage up and down the canyon, and will degrade the road, incurring county expense for repair and maintenance.</i></p> <p>Response #1152-7: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating the Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. CDOT is responsible for maintenance of the State highways such as SH 72. Boulder County is responsible for maintenance of county roads (CRs), such as CR 77S, CR 132, etc. Boulder County maintains Gross Dam Road (CR 77S) from SH 73 to the railroad tracks. Denver</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Water currently maintains Gross Dam Road from the railroad track crossing to Flagstaff Road. During construction, Denver Water or its contractor would be responsible for maintaining all of Gross Dam Road. Denver Water would work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1152-8 (ID 2200): <i>Noise is an environmental concern to Canyon residents. Not only will we hear all the trucks moving up and down through our area, we will hear the sounds of heavy machinery in operation and frequently the sounds of blasting There are many trains traveling close to the Gross dam site and we often hear the sound of the trains as well as the whistle warnings. As residents, we do not want these noises to increase.</i></p> <p>Response #1152-8: For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1. Construction activities (e.g., tree removal, helicopters, concrete batch plant, gravel pit) would not operate every day for 5 years. For example, tree removal is expected to take 6 to 8 months (DEIS Section 2.3.2.1), a majority of the quarry activity would take place prior to construction (DEIS Section 2.3.2.1), and blasting would likely take place at the end of the day.</p> <p>The noise levels described in the EIS are predicted at distances of less than 50 feet from the source and would be temporary and remote. It is true that noise would travel greater distances from a source of</p>



Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>sound at higher elevations due to lack of ground absorption. Sound travels omni-directionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 dB.</p> <p>Comment #1152-9 (ID 2199): <i>The destruction of 20,000 trees is of major environmental impact in these times of global warming because of the loss of the carbon dioxide sink. If the trees are burned on site, it will definitely increase the carbon dioxide in the atmosphere. If the trees are carried to a landfill and buried, there is the transportation and burial cost, noise, and pollution, as well as highway congestion. As buried biomass decomposes, it creates methane gas, a much worse global warming contributor than carbon dioxide. This is not evaluated in the DEIS.</i></p> <p>Response #1152-9: Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p> <p>GHG emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>As described in DEIS Section 2.3.2.1, a traditional slash pile and burn approach to disposing the residue is not viable at Gross Reservoir due to air quality concerns and regulations. Rather, Denver Water would implement the following possible alternative forest residue disposal options:</p> <ol style="list-style-type: none"> 1. Burning in an air curtain destructor. 2. Grinding whole trees and hauling to a landfill. 3. Loading forest residue into trucks and hauling to a landfill. <p>Some of the forest residue could also be turned into products (e.g., sawtimber, firewood, etc.) and the remaining unmerchantable material would be disposed of by a combination of the three options. All opportunities to utilize some of the material to reduce the residue volume would be explored by Denver Water.</p> <p>Denver Water intends to convert as much of the timber as possible into merchantable forest products such as sawtimber and firewood to reduce the amount of residue that needs to be disposed.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1153 Kent Wehmeyer</p>	<div style="text-align: center;">   </div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin: Please accept my comments on the Moffat EIS for your record.</p> <p>I have lived in Colorado for the past 35 years. Most of that time has been spent living and working on the Front Range. I know first hand from my 30+ years on the Front Range how little Denver Water does to actually encourage water conservation. The only time they really push for conservation is when they are about to run out of water! In this state they should be pushing customers to conserve ALL THE TIME, not just in dry times.</p> <p>It is clear to me that those organizations in charge of water use along the Front Range will not seriously employ conservation practices until such time as there is no more water to divert from the Western Slope. I believe that time has to be now, while we still have enough water in the Fraser Valley to sustain a reasonably health stream ecology. Allowing this additional diversion will only postpone the employment of serious conservation practices and at the same time place the ecology of the Fraser Valley steams in more danger.</p> <p>Here is my view of this situation in summary form:</p> <ol style="list-style-type: none"> 1. At some point in the future, the total annual water diversions from the Western Slope to the Front Range will stop increasing. 2. The main reason for not continuing to increase total annual diversions will be the environmental damage caused to the river systems on the Western Slope. 3. Once diversions are capped, real conservation will begin along the Front Range. And not before. 4. Once real conservation measures are in place, our rivers will be healthier and the citizens of Colorado will be happy and proud to be working together to help sustain our ecology. <p>Why wait to start this process of real conservation? Why place our rivers in more danger? The Front Range water boards may "own" the water, but they do not have the right to damage our rivers. Lets get going on the path to real conservation now, not "some time" in the future.</p> <p>Thank you for considering my opinion on this important matter. Sincerely,</p> <p>Kent Wehmeyer <i>Kent Wehmeyer 2/19/2010</i></p> <p>Please consider the following as supporting data to my opinion:</p> <p style="text-align: right;"><i>other size</i></p>	<p>Comment #1153-1 (ID 2212): <i>Please accept my comments on the Moffat EIS for your record. I have lived in Colorado for the past 35 years. Most of that time has been spent living and working on the Front Range.</i></p> <p>Response #1153-1: The Corps notes the comment.</p> <p>Comment #1153-2 (ID 2211): <i>I know first hand from my 30+ years on the Front Range how little Denver Water does to actually encourage water conservation. The only time they really push for conservation is when they are about to run out of water! In this state they should be pushing customers to conserve ALL THE TIME, not just in dry times. It is clear to me that those organizations in charge of water use along the Front Range will not seriously employ conservation practices until such time as there is no more water to divert from the Western Slope. I believe that time has to be now, while we still have enough water in the Fraser Valley to sustain a reasonably health stream ecology. Allowing this additional diversion will only postpone the employment of serious conservation practices and at the same time place the ecology of the Fraser Valley steams in more danger.</i></p> <p>Response #1153-2: Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of 18,000 AF. Denver Water is implementing an aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p><i>Solutions 2009</i>, a Denver Water publication, states that its 2008 water conservation incentives and water savings totaled 487 acre feet. These incentives included rebates for toilets, washing machines, etc. Compared with their gross demand in 2008 (350,000 acre foot?), this so called conservation amounts to less than 1/5 of one percent of gross demand (0.15%)</p> <p>Denver Water is proud of its "award winning advertising campaign" for reduction of water use; however, the actual numbers show that this campaign has not truly reduced usage. Denver Water invented the term "xeriscaping" 40 years ago, but has yet to successfully put this into practice, as evidenced by the green lawns throughout the metro area.</p> <p>Currently 62% of the household water used in Denver is for watering outdoor lawns. It is heart breaking for Grand County residents to see precious water running down residential sidewalks and gutters in the Denver metro area. Denver Water's "enforcement" program uses only "monitors" to "educate customers about water waste." Since conservation is only voluntary, there is no true regulation of water use, therefore nothing to enforce!</p> <p>In other states, even voluntary conservation measures have been effective: for example, when customers are paid to remove bluegrass lawns, water use drops dramatically. A similar program would save more than the 34,000 acre feet that Denver proposes to take in the preferred action. They have ignored a simple solution that would AVOID impacts to the Fraser River!</p> <p>The Draft EIS conservation goal is far too modest. It fails to mention that Denver owns 80,000 acre feet of re-use water rights for water already in the city – but actually re-uses only 17,000 acre feet! The remaining re-use water is almost double the proposed 34,000 acre feet!</p> <p>The most outrageous fact is that when Denver imposes water restrictions, it can take ALL bypass flows and completely dry up the Fraser River! What does Denver propose to do to avoid, minimize or mitigate this impact? This is certainly not addressed in the EIS!</p> <p>The Army Corps of Engineers must require Denver Water to implement a legitimate and effective water conservation plan prior to risking endangering the Fraser River ecosystem.</p> <p>CC: U. S. Environmental Protection Agency Colorado Division of Wildlife Sen. Mark Udall Rep. Jared Polis</p>	<p>Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.</p> <p>As shown in Table 1-1 in FEIS Section 1.4.1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A (Supplemental Evaluation of Denver Water Demand Projections) and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Comment #1153-3 (ID 2210): <i>Here is my view of this situation in summary form: 1. At some point in the future, the total annual water diversions from the Western Slope to the Front</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>Range will stop increasing. 2. The main reason for not continuing to increase total annual diversions will be the environmental damage caused to the river systems on the Western Slope.</i></p> <p>Response #1153-3: The Corps notes the comment.</p> <p>Comment #1153-4 (ID 2209): <i>3. Once diversions are capped, real conservation will begin along the Front Range. And not before. 4. Once real conservation measures are in place, our rivers will be healthier and the citizens of Colorado will be happy and proud to be working together to help sustain our ecology. Why wait to start this process of real conservation? Why place our rivers in more danger? The Front Range water boards may "own" the water, but they do not have the right to damage our rivers. Lets get going on the path to real conservation now, not "some time" in the future.</i></p> <p>Response #1153-4: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1153-5 (ID 2208): <i>Solutions 2009, a Denver Water publication, states that its 2008 water conservation incentives and water savings totaled 487 acre feet. These incentives included rebates for toilets, washing machines, etc. Compared with their gross demand in 2008 (350,000 acre feet?), this so-called conservation amounts to less than 1/5 of one percent of gross demand (0.15%)! Denver Water is proud of its "award winning advertising campaign" for reduction of water use; however, the actual numbers show that this campaign has not truly reduced usage. Denver Water invented the term "xeriscaping" 40 years ago, but has yet to successfully put this into practice, as evidenced by the green lawns throughout the metro area. Currently 62% of the household water used in Denver is for watering outdoor lawns. It is heart breaking for Grand County residents to see precious water running down residential sidewalks and gutters in the Denver metro area. Denver Water's "enforcement" program uses only "monitors" to "educate customers about water waste." Since conservation is only voluntary, there is no true regulation of water use, therefore nothing to enforce! In other states, even voluntary conservation measures have been effective: for example, when customers are paid to remove bluegrass lawns, water use drops dramatically. A similar program would save more than the 34,000 acre feet that Denver proposes to take in the preferred action. They have ignored a simple solution that would AVOID impacts to the Fraser River! The Draft EIS</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>conservation goal is far too modest. It fails to mention that Denver owns 80,000 acre feet of re-use water rights for water already in the city - but actually re-uses only 17,000 acre feet! The remaining re-use water is almost double the proposed 34,000 acre feet!</i></p> <p><i>The most outrageous fact is that when Denver imposes water restrictions, it can take ALL bypass flows and completely dry up the Fraser River! What does Denver propose to do to avoid, minimize or mitigate this impact? This is certainly not addressed in the EIS! The Army Corps of Engineers must require Denver Water to implement a legitimate and effective water conservation plan prior to risking endangering the Fraser River ecosystem.</i></p> <p>Response #1153-5: Conservation As shown in FEIS Table 1-1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p>



Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>The decrease in water use in 2008 compared with pre-drought levels cannot be extrapolated by itself. Single year water use is influenced by temporal conditions which are not useful in long-term water demand forecasting. For instance, recollection of the previous drought, declining economic conditions, and the quantity or timeliness of precipitation were influences on water use in 2008.</p> <p>Landscape Requirements Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section</p>



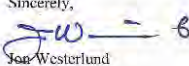
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>404 regulations.</p> <p>Recycled Water All water delivered by Denver Water to its customers is classified as reusable or non-reusable. Reusable water can be used and reused to extinction. Use of reusable water increases Denver Water's system supply and reduces the amount of water diverted from other components of the system. The main sources of reusable water in Denver Water's Collection System are the Blue River water delivered through the Roberts Tunnel, Fraser River water diverted by the Meadow Creek system (the only reusable water associated with the Moffat Collection System), and transferred agricultural water rights on the East Slope. The Metro WWTP and the Bi-City WWTP are the primary return points of Denver Water's reusable water. Denver Water keeps track of reusable return flows and currently uses, or is planning to use, most of its reusable supplies through river exchanges, transfers to gravel pits, and to supply water for a non-potable recycling project. As shown in FEIS Table 2-9, approximately 7,600 AF/yr on average of unused return flows would be available primarily in the winter months, when Denver Water's customer demands, non-potable demands, and exchange potential are relatively low. The amount of unused reusable supplies available varies considerably from year to year, ranging from 0 AF to as much as 37,500 AF/yr. Refer to FEIS Section 1.3.1 (subheading, Non-Potable Recycling Facility).</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1154 Debbie Wehmeyer</p>	<div style="text-align: center;"> <p>Deborah K Wehmeyer</p>  </div> <div style="text-align: center;">  </div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin:</p> <p>I am so mad at Denver Water and all the other Front Range water boards I could just spit!</p> <p>For years we have watched our rivers dried up by diversions to the Front Range. And now they want to take even more. When will it quit? I guess when there isn't any more to take. I can remember when Crooked Creek was full of brookies all summer long. Not any more. I can remember when St. Lewis Creek was so full to cross on foot in the spring. Not any more.</p> <p>Why can't the Front Range water users be made to use less water? Seems to me like a better way to go then drying up the Fraser River. How about Grand Lake? Used to be crystal clear. Not any more.</p> <p>It doesn't take a rocket scientist to look into the future. We can stop the increase in diversions now and save what little we have left of our rivers, or we can keep taking more and the rivers will be even worse off. And if it keeps going they will die all together. It's really that simple. Just like the dams killed off the salmon spanning in the North West rivers.</p> <p>I sure hope the Corp will take responsibility for our rivers and our future generations. Please protect the life and health of Grand Lake and the Fraser and Colorado Rivers.</p> <p>Sincerely,</p> <p><i>Debbie Wehmeyer</i> 2-17-2010</p> <p>Cc: U. S. Environmental Protection Agency Colorado Division of Wildlife Sen. Mark Udall Rep. Jared Polis</p>	<p>Comment #1154-1 (ID 2213): <i>I am so mad at Denver Water and all the other Front Range water boards I could just spit! For years we have watched our rivers dried up by diversions to the Front Range. And now they want to take even more. When will it quit? I guess when there isn't any more to take. I can remember when Crooked Creek was full of brookies all summer long. Not any more. I can remember when St. Lewis Creek was so full to cross on foot in the spring. Not any more. Why can't the Front Range water users be made to use less water? Seems to me like a better way to go then drying up the Fraser River. How about Grand Lake? Used to be crystal clear. Not any more. It doesn't take a rocket scientist to look into the future. We can stop the increase in diversions now and save what little we have left of our rivers, or we can keep taking more and the rivers will be even worse off. And if it keeps going they will die all together. It's really that simple. Just like the dams killed off the salmon spanning in the North West rivers. I sure hope the Corp will take responsibility for our rivers and our future generations. Please protect the life and health of Grand Lake and the Fraser and Colorado Rivers.</i></p> <p>Response #1154-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1155 Jon Westerlund</p>	<div style="text-align: center;">  <p>February 23, 2010</p>  </div> <p>Scott Franklin, Moffat EIS Project Manager US Army Corps of Engineers Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p style="text-align: center;">RE: Moffat Firming Project</p> <p>Dear Mr. Franklin:</p> <p>I am writing to express my concerns about the Denver Water draft EIS for the Moffat firming project. I believe that there are a number of impacts that are not adequately addressed.</p> <p>The health of the rivers and the wetlands of Grand County is dependent on adequate streams flows. The EIS should recognize the impact of diminished water volumes and prevent stream and wetland degradation with guaranteed year round baseline stream flows in the Fraser, Colorado and Williams Fork rivers and establish adequate flushing flows to maintain the rivers' ecosystems.</p> <p>The EIS should recognize the impact of stream flow volume on water temperature and ensure that baseline flows will ensure compliance with the Colorado Department of Public Health and Environment stream temperature standards.</p> <p>The EIS should recognize the effect of diminished stream flows have on water quality and clarity in Granby Reservoir, Shadow Mountain reservoir and Grand Lake.</p> <p>The EIS should recognize the combined effects that this project and the Windy Gap Firming project will have on the upper Colorado River and outline mitigation for these impacts.</p> <p>Denver Water to its credit has made some efforts to encourage water conservation. However, this has resulted in relatively small water savings and far greater efforts should be required to conserve in order to preserve the rivers and wetlands of Grand County.</p> <p>I believe that it is the Corps duty to see that the EIS fully recognizes these impacts and addresses full mitigation of them both in the short and the long term. To this end a mechanism of midcourse correction should be included to address problems if mitigations prove inadequate.</p> <p>Sincerely,  Jon Westerlund CC: EPA</p>	<p>Comment #1155-1 (ID 2220): <i>I am writing to express my concerns about the Denver Water draft EIS for the Moffat firming project. I believe that there are a number of impacts that are not adequately addressed.</i></p> <p>Response #1155-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1155-2 (ID 2219): <i>The health of the rivers and the wetlands of Grand County is dependent on adequate streams flows. The EIS should recognize the impact of diminished water volumes and prevent stream and wetland degradation with guaranteed year round baseline stream flows in the Fraser, Colorado and Williams Fork rivers and establish adequate flushing flows to maintain the rivers' ecosystems.</i></p> <p>Response #1155-2: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>Comment #1155-3 (ID 2218): <i>The EIS should recognize the impact of stream flow volume on water temperature and ensure that baseline flows will ensure compliance with the Colorado Department of Public Health and Environment stream temperature standards.</i></p> <p>Response #1155-3: Water temperatures are affected by factors other than flow, and the proposed Project would not increase diversions during low flow periods (nor would it change Denver Water's existing bypass requirements). Additional water quality analyses have been performed on the Fraser River and the Three Lakes area, including various temperature studies. Refer to FEIS Sections 4.6.2 and 5.2. Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit. Minimum flows are part of the discussion.</p> <p>Comment #1155-4 (ID 2217): <i>The EIS should recognize the effect of diminished stream flows have on water quality and clarity in Granby Reservoir, Shadow Mountain reservoir and Grand Lake.</i></p> <p>Response #1155-4: Additional water quality analysis has been performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1155-5 (ID 2216): <i>The EIS should recognize the combined effects that this project and the Windy Gap Firming project will have on the upper Colorado River and outline</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>mitigation for these impacts.</i></p> <p>Response #1155-5: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p> <p>Comment #1155-6 (ID 2215): <i>Denver Water to its credit has made some efforts to encourage water conservation. However, this has resulted in relatively small water savings and far</i></p>

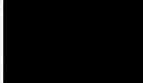

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>greater efforts should be required to conserve in order to preserve the rivers and wetlands of Grand County.</i></p> <p>Response #1155-6: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project.</p> <p>It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>


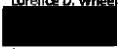
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1155-7 (ID 2214): <i>I believe that it is the Corps duty to see that the EIS fully recognizes these impacts and addresses full mitigation of them both in the short and the long term. To this end a mechanism of midcourse correction should be included to address problems if mitigations prove inadequate.</i></p> <p>Response #1155-7: Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1156 Lorence D. Wheeler</p>	<div style="text-align: center;"> <p>Lorence D. Wheeler</p>  <p>February 26, 2010</p> </div> <div style="text-align: center;">  </div> <p>Mr. Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd Denver, CO 80128</p> <p>Re: Comment Moffat Filling Project</p> <p>Dear Mr. Franklin,</p> <p>i was a lifelong resident of Wisconsin until I moved to Denver from 1997 till 2001 when I moved to the Fraser River Valley as a full time resident. As a recovering lawyer I find this process curious. I understand the concept of first use but find the taking of water from one drainage basin to another basin to be inappropriate. This is especially true when the water most of which is not used to extinction is not returned to the original basin but instead is put into the acquiring basin's drainage or even worse sold to a downstream user. In the Midwest if water is taken from the Great Lakes the unused water must be returned.</p> <p>I earlier pointed out to you that I lived in Denver for 4 years. The water waste that I witnessed was shocking; janitorial employees of office and housing projects washing the sidewalks on a daily basis, residents watering their lawns on a daily basis, water running down the gutter. I am aware that others have probably expressed concern that Denver be required to conserve before they take more water from the Fraser River. I whole heartedly agree; however, the conservation should be real conservation not the lip service that they have given in the past. I believe that Denver Water has the ability to substantially increase the water available to its customers by education and enforcing appropriate use without taking any additional water from the Fraser and this should be fully implemented before any additional water is diverted.</p> <p>The EIS does not address the joint impact on the Colorado River and the Three Lakes area of the Moffat and Windy Gap filling projects. I realize that a different agency is coordinating Windy Gap but the law requires that all impacts be considered. This might be a good time for competing agencies to put the interest of the environment in the forefront.</p>	<p>Comment #1156-1 (ID 2226): <i>I was a lifelong resident of Wisconsin until I moved to Denver from 1997 till 2001 when I moved to the Fraser River Valley as a full time resident. As a recovering lawyer I find this process curious. I understand the concept of first use but find the taking of water from one drainage basin to another basin to be inappropriate. This is especially true when the water most of which is not use d to extinction is not returned to the original basin but instead is put into the acquiring basin's drainage or even worse sold to a downstream user. In the Midwest if water is taken from the Great Lakes the unused water must be returned.</i></p> <p>Response #1156-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1156-2 (ID 2225): <i>I earlier pointed out to you that I lived in Denver for 4 years. The water waste that I witnessed was shocking; janitorial employees of office and housing projects washing the sidewalks on a daily basis, residents watering their lawns on a daily basis, water running down the gutter. I am aware that others have probably expressed concern that Denver be required to conserve before they take more water from the Fraser River. I whole heartedly agree; however, the conservation should be real conservation not the lip service that they have given in the past. I believe that Denver Water has the ability to substantially increase the water available to its customers by education and enforcing appropriate use without taking any additional water from the Fraser and this should be fully implemented before any additional water is diverted.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>Denver Water makes some vague references to mitigation they are offering and Grand County talks about some kind of a deal. Unless the specific terms of this mitigation and a deal with Grand County are spelled out in the EIS they are worthless. An agreement to make an agreement is totally unenforceable.</p> <p>One of the things they are offering is to take additional water only during periods of peak runoff. The problem is that peak runoff is required to maintain the health of the river. This must be addressed.</p> <p>I respectfully request that you require Denver Water to fully address the issues which I have raised before allowing them to move forward with this firming project. I think conservation is most important and they should be required to do all in their power to reduce the demands of their customers. I realize the reduction of water consumption would probably increase the cost; however, that is just an economic issue. Economic issues are short term, the Environment is forever!</p> <p>Thank you,  Lorice D. Wheeler  (physical address for</p>	<p>Response #1156-2: Conservation is part of the solution for water supply projects. The Purpose and Need for the Moffat Project consists of: (1) meeting a water supply shortfall of 18,000 AF (i.e., the portion that conservation would not meet), (2) improving reliability in the north end of the system to avoid closure of WTPs, and (3) reducing vulnerability by balancing the water supplies in the North and South systems. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Comment #1156-3 (ID 2224): <i>The EIS does not address the joint impact on the Colorado River and the Three Lakes area of the Moffat and Windy Gap firming projects. I realize that a different agency is coordinating Windy Gap but the law requires that all impacts be considered. This might be a good time for competing agencies to put the interest of the environment in the forefront.</i></p> <p>Response #1156-3: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps'</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1156-4 (ID 2223): <i>Denver Water makes some vague references to mitigation they are offering and Grand County talks about some kind of a deal. Unless the specific terms of this mitigation and a deal with Grand County are spelled out in the EIS they are worthless. An agreement to make an agreement is totally unenforceable.</i></p> <p>Response #1156-4: The Corps will include specific mitigation measures that are enforceable through a Section 404 Permit, if issued. CDPHE will also include specific water quality mitigation measures that are enforceable through a Section 401 Certification. USFWS will</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>include specific requirements to protect threatened and endangered species that are enforceable through a BO. In addition, Denver Water has entered into three agreements that would enhance the existing environment and provide additional protections: CRCA, LBD Cooperative Effort, and Fish and Wildlife Enhancement Plan, copies of which are provided in FEIS Appendix M. Each of these plans will be implemented through permanent agreements between the parties. The Corps will consider these agreements, along with all “reasonably foreseeable future actions” in its decision process regarding the proposed Moffat Project. These agreements are not intended to mitigate the impacts of the proposed Project; instead, the purpose is to improve existing conditions of aquatic environments in the Colorado River Basin should Gross Reservoir be enlarged.</p> <p>Comment #1156-5 (ID 2222): <i>One of the things they are offering is to take additional water only during periods of peak runoff. The problem is that peak runoff is required to maintain the health of the river. This must be addressed.</i></p> <p>Response #1156-5: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System.</p> <p>The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1156-6 (ID 2221): <i>I respectfully request that you require Denver Water to fully address the issues which I have raised before allowing them to move forward with this firming project. I think conservation is most important and they should be required to do all in their power to reduce the demands of their customers, I realize the reduction of water consumption would probably increase the cost; however, that is just an economic issue. Economic issues are short term, the Environment is forever!</i></p> <p>Response #1156-6: Water conservation is part of the solution for water supply projects. The Purpose and Need for the Moffat Project consists of: (1) meeting a water supply shortfall of 18,000 AF (i.e., the portion that conservation would not meet), (2) improving reliability in the north end of the system to avoid closure of WTPs, and (3) reducing vulnerability by balancing the water supplies in the North and South systems. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented a conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1157 Bruce J. Williams</p>	<div style="text-align: center;">  <p>Bruce J. Williams</p>  </div> <p>February 24, 2010</p> <p>Mr. Scott Franklin Moffatt EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Re: Moffatt Firming and Windy Gap Projects</p> <p>Dear Mr. Franklin:</p> <p>I am writing you as a concerned citizen of Colorado. My concern is that the continued draw of water from the western slope, has reached a point of seriously destroying our western slope habitat, environment, economy, and the beauty of our state.</p> <p>I earnestly believe that the proposed Moffatt Firming and Windy Gap Projects seriously jeopardize the upper Colorado ecosystem. The upper Colorado is already in serious ecological danger and the Fraser river flow is at times down to nothing but treated water effluent. The Environmental Impact Statement does not even consider critical current aspects such as the effects from previous projects, the need for periodic high flows, and impacts to the Grand Lake. Denver may have a legal right to this water, but to totally ignore the impact to Colorado's environment and economy is extremely short sighted.</p> <p>Even if these projects proceed, what about the future? Does the front range intend to eventually dry up the western slope? I believe it is time to recognize that there is no more water on the western slope available for eastern Colorado. Water, as a limited resource, needs to be prioritized. It is time for someone to make the tough decisions and not continue deferring the problem to the next generation.</p> <p>Over 85% of Colorado water is used for agricultural purposes. Should water for agriculture take priority over water for front range population growth? Since growth cannot be stopped, maybe it is time for Denver to consider buying up eastern Colorado irrigated farm land. Taking 5% of Colorado irrigated farm land out of production, would provide enough water to nearly double the population of Denver. Letting some of eastern Colorado revert back to native grassland would surely not harm the environment, and would avoid environmentally damaging the western slope.</p> <p>Sincerely,  Bruce J. Williams</p> <div style="text-align: center;">  </div>	<p>Comment #1157-1 (ID 2229): <i>I am writing you as a concerned citizen of Colorado. My concern is that the continued draw of water from the western slope, has reached a point of seriously destroying our western slope habitat, environment, economy, and the beauty of our state.</i></p> <p>Response #1157-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1157-2 (ID 2228): <i>I earnestly believe that the proposed Moffatt Firming and Windy Gap Projects seriously jeopardize the upper Colorado ecosystem. The upper Colorado is already in serious ecological danger and the Fraser river flow is at times down to nothing but treated water effluent. The Environmental Impact Statement does not even consider critical current aspects such as the effects from previous projects, the need for periodic high flows, and impacts to the Grand Lake. Denver may have a legal right to this water, but to totally ignore the impact to Colorado's environment and economy is extremely short sighted. Even if these projects proceed, what about the future? Does the front range intend to eventually dry up the western slope? I believe it is time to recognize that there is no more water on the western slope available for eastern Colorado. Water, as a limited resource, needs to be prioritized. It is time for someone to make the tough decisions and not continue deferring the problem to the next generation.</i></p> <p>Response #1157-2: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions</p>


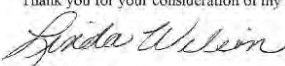

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the Colorado-Big Thompson Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1157-3 (ID 2227): <i>Over 85% of Colorado water is used for agricultural purposes. Should water for agriculture take priority over water for front range population growth? Since growth cannot be stopped, maybe it is time for Denver to consider buying up eastern Colorado irrigated farm land. Taking 5% of Colorado irrigated farm land out of production, would provide enough water to nearly double the population of Denver. Letting some of eastern Colorado revert back to native grassland would surely not harm the environment, and would avoid environmentally damaging the western slope.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1157-3:</p> <p>Alternative 13a was evaluated in EIS and consists of a combination of water supplies derived from agricultural water rights transfers and Denver Water's Moffat Collection System. There are many factors, in addition to cost, which affect the amount of water that could be provided by agricultural water rights transfers. The availability of agricultural water rights is a key limiting factor that affects the amount of water that could potentially be derived from this supply. The ability to purchase a significant portion of the shares in these ditches is uncertain because of the competitive market for agricultural water rights and there is no guarantee there would be an adequate number of willing sellers under these ditch systems.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1158 Linda Wilson</p>	<div style="text-align: center;">  <p>LINDA WILSON</p> </div> <p style="text-align: right;">February 23, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin:</p> <p>I am extremely concerned about the proposed Moffat FIRMING Project which will divert more headwaters in Grand County to the Front Range. I am particularly galled by the fact that a large percentage of the water already being diverted is used for lawn watering. Those of us who have domestic wells here in Grand County know the importance of conservation. Denver Water should initiate an aggressive conservation program for Front Range residents. This would probably alleviate the perceived need for the diversion project.</p> <p>I say "perceived" because I was angered and disgusted when I purchased a bottle of water in Mazatlan, Mexico, and read the label "From a municipal water supply, Denver, Colorado." I strongly feel that the Denver Water Board is—at least—misleading Colorado residents when it implies that the water is needed for Front Range areas when it is being sold in another country.</p> <p>We have been in a drought cycle for the past several years. Over that time, I have seen the level of the water in all of the rivers in Grand County decrease. How much more water can be diverted before the Fraser is a trickle? Our economy is very dependent upon recreationists who come to Grand County for the fishing, boating and just being able to sit beside a stream and watch animals come to drink.</p> <p>Our environment is the most important resource we will leave for our children and grandchildren. Protection of this environment is your responsibility. I do not feel that the Draft EIS sufficiently addresses the charge by the Clean Water Act which requires Denver Water to avoid, minimize, and mitigate all identified impacts.</p> <p>I urge you to not allow the permit for Denver Water to divert more of these waters. At the very least, the Preferred Alternative (as recommended by Trout Unlimited) should be approved <u>only</u> if comprehensive points of impact and mitigation are diligently incorporated in the Permit—AND a system is put into place whereby there is oversight and strict adherence is assured.</p> <p>Thank you for your consideration of my comments on this very important issue.</p> <div style="text-align: center;">  <p>Linda Wilson (full time Grand County resident)</p> </div> <div style="text-align: center;">  </div>	<p>Comment #1158-4 (ID 2234): <i>I am extremely concerned about the proposed Moffat FIRMING Project which will divert more headwaters in Grand County to the Front Range. I am particularly galled by the fact that a large percentage of the water already being diverted is used for lawn watering. Those of us who have domestic wells here in Grand County know the importance of conservation. Denver Water should initiate an aggressive conservation program for Front Range residents. This would probably alleviate the perceived need for the diversion project.</i></p> <p>Response #1158-4: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1158-1 (ID 2233): <i>I say "perceived" because I was angered and disgusted when I purchased a bottle of water in Mazatlan, Mexico, and read the label "From a municipal water supply, Denver, Colorado." I strongly feel that the Denver Water Board is-at least-misleading Colorado residents when it implies that the water is needed for Front Range areas when it is being sold in another country.</i></p> <p>Response #1158-1: One of Denver Water's customers manufactures soft drinks and bottled water. These products are then sold throughout the State, country, and the world. Other beverage companies also use the "municipal water supply, Denver, Colorado" as a source of water.</p> <p>Comment #1158-3 (ID 2232): <i>We have been in a drought cycle for the past several years. Over that time, I have seen the level of the water in all of the rivers in Grand County decrease. How much more water can be diverted before the Fraser is a trickle? Our economy is very dependent upon recreationists who come to Grand County for the fishing, boating and just being able to sit beside a stream and watch animals come to drink.</i></p> <p>Response #1158-3: As discussed in Section 4.1 of the DEIS, the proposed Project would not divert water during dry years.</p> <p>Comment #1158-2 (ID 2231): <i>Our environment is the most important resource we will leave for our children and grandchildren. Protection of this environment is your responsibility. I do not feel that the Draft EIS sufficiently addresses the charge by the Clean Water Act which requires Denver Water to avoid, minimize, and mitigate all</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>identified impacts.</i></p> <p>Response #1158-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA. Under the Clean Water Act (CWA) Section 404 regulations, the Corps is required to select the least environmentally damaging practicable alternative. Impacts to the aquatic environment, including wetlands, must first be avoided or minimized. Mitigation is used to compensate for residual impacts after impacts have been reduced through avoidance and minimization. Denver Water's Conceptual Mitigation Plan for Project-related impacts that cannot be avoided or further minimized is provided in FEIS Appendix M.</p> <p>Comment #1158-5 (ID 2230): <i>I urge you to not allow the permit for Denver Water to divert more of these waters. At the very least, the Preferred Alternative (as recommended by Trout Unlimited) should be approved only if comprehensive points of impact and mitigation are diligently incorporated in the Permit--AND a system is put into place whereby there is oversight and strict adherence is assured.</i></p> <p>Response #1158-5: Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1159 Lance Wood</p>	<p>2/27/2010</p> <p>Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128 Cc: Representatives</p> <p>Dear Mr. Franklin,</p> <p>I have observed the Fraser River for over 35 years. It is completely different from the powerful river it began as, where you would think twice before crossing. Now, especially in the fall, it is simply some wet rocks. Still, there is something. To crush your heart, observe the creeks in the same drainage that are completely diverted, such as Jim Creek. To take more, 80%, from the Fraser River is ridiculous and irresponsible. To explain further is an exercise in the obvious. The arid Front Range will still be arid with or without the extra water, but a valley's remaining life blood will be taken. Imagine Phoenix residents all having grass lawns, why not rocks and cactus zero scapes on the Front Range? Nothing would have to die there or in the mountains. Moral issues even come to mind as infinite demand creates finite damage. Water is a finite resource; the drainage is already diverted beyond reason. Please add some common sense and leave what water remains where God put it.</p> <p>Thank you, <i>Thk u</i> Lance Wood <i>Now</i></p> 	<p>Comment #1159-1 (ID 2235): <i>I have observed the Fraser River for over 35 years. It is completely different from the powerful river it began as, where you would think twice before crossing. Now, especially in the fall, it is simply some wet rocks. Still, there is something. To crush your heart, observe the creeks in the same drainage that are completely diverted, such as Jim Creek. To take more, 80%, from the Fraser River is ridiculous and irresponsible. To explain further is an exercise in the obvious. The arid Front Range will still be arid with or without the extra water, but a valley's remaining life blood will be taken. Imagine Phoenix residents all having grass lawns, why not rocks and cactus zero scapes on the Front Range'? Nothing would have to die there or in the mountains. Moral issues even come to mind as infinite demand creates finite damage. Water is a finite resource; the drainage is already diverted beyond reason. Please add some common sense and leave what water remains where God put it.</i></p> <p>Response #1159-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1160 Elden J. Yokooji</p>	<p>FROM : ISABELLA'S LOFT FAX NO. : [REDACTED] Feb. 26 2010 05:19PM P1</p> <p style="text-align: center;">February 26, 2010</p> <p>To: US, Army of Engineers Scott Franklin, Moffat EIS Project Manager 9307 South Wadsworth Blvd. Littleton, CO 80218</p> <p>Attn: Scott Franklin</p> <p>Comments regarding the Environmental Impact Statement for an amendment to the Hydropower License to enlarge the Gross Dam Reservoir</p> <p>From:</p> <p>Elden J. Yokooji [REDACTED]</p> <p style="text-align: center;">FEB-26-2010 05:09PM From: [REDACTED] TO: TRIL LAKES Page: 001 R=90%</p>	<p>Comment #1160-2 (ID 2259): <i>Comments regarding the Environmental Impact Statement for an amendment to the Hydropower License to enlarge the Gross Dam Reservoir.</i></p> <p>Response #1160-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1160-5 (ID 2258): <i>It is with alarm and great concern that I am writing this letter regarding the expansion of Gross Dam Reservoir in Coal Creek Canyon, Colorado. As a 16 year resident of Coal Creek Canyon this concerns me on several levels.</i></p> <p>Response #1160-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1160-6 (ID 2257): <i>Coal Creek Canyon has always been a "bedroom community" for the length of its existence and is likely to remain so. Residents commute many miles to Denver, Boulder or Golden for work. While there is an elementary school here, junior high and high school students must ride a bus into Golden. The only highway on which we can commute is Colorado Highway 72, a two lane highway down its entire length. It is inconceivable to think of the increased traffic and danger to our residents if we are to see the semi trucks and heavy equipment required for this expansion of Gross Reservoir. Colorado 72 highway is two lanes only, with few areas to pass. The shoulders are narrow and there are few places for big trucks or equipment to pull over to allow passage of faster moving traffic. Bicycles, and abundant wildlife, also add to the road conditions here in the Canyon.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">FROM : ISOBELLI'S LOFT FROM ID: [REDACTED] FILE: 26-2010-05120001-02</p> <p style="text-align: center;">January 23, 2010</p> <p>To: U.S. Army Corp of Engineers Scott Franklin, Moffat EIS Project Manager</p> <p>It is with alarm and great concern that I am writing this letter regarding the expansion of Gross Dam Reservoir in Coal Creek Canyon, Colorado. As a 16 year resident of Coal Creek Canyon this concerns me on several levels.</p> <p>Coal Creek Canyon has always been a "bedroom community" for the length of it's existence and is likely to remain so. Residents commute many miles to Denver, Boulder or Golden for work. While there is a elementary school here, junior high and high school students must ride a bus into Golden. The only highway on which we can commute is Colorado Highway 72, a two lane highway down it's entire length. It is inconceivable to think of the increased traffic and danger to our residents if we are to see the semi trucks and heavy equipment required for this expansion of Gross Reservoir. Colorado 72 highway is two lanes only, with few areas to pass. The shoulders are narrow and there are few places for big trucks or equipment to pull over to allow passage of faster moving traffic. Bicycles, and abundant wildlife, also add to the road conditions here in the Canyon.</p> <p>The front range of the mountains near Denver has for the most part, remained pristine. Several attempts have been made to bring rock quarries into our mountain community in past years. Rock quarries have no place in a quiet mountain community, and the residents have fought and won before. The Gross Dam Expansion promises us no less than 10 rock quarries in this area. Of major concern is the location of a known fault line in the area of Gross Dam. Increasing the size of Gross Dam, could increase the danger to the city of Boulder below. Wildlife is abundant in the area, including a return of the historic migration of elk to the area. The increased heavy traffic, not to mention blasting of rock quarries could destroy not only the quiet of our mountain community, but this wildlife area as well. Property values are also likely to be affected negatively by this proposed expansion of Gross Reservoir. In a time not only of an uncertain economy, but increased knowledge of possible global warming, this proposed expansion is worrisome.</p> <p>If appears the main thrust behind this expansion is the increased expansion and sprawl of particularly the city of Arvada, and other entities along the front range. The Denver Water Board does not have a good history of conserving water. Indeed, Denver has one of the poorest records in use of water within the western states over many decades. Increased growth and periods of drought have not changed the habits of the Denver Water Board. Why should the very essence of our lives as mountain residents come under the attack of the Denver Water Board with this expansion? We, as residents of Coal Creek Canyon, will be subjected to heavy traffic, no less than 10 rock quarries, destruction of a pristine area and wildlife, and possible loss of property values, to satisfy the "needs" for the urban sprawl.</p> <p style="text-align: center;">FEB-26-2010 00:10PM FROM: [REDACTED] ID: TRI LAKES Page: 005 REOPEN</p>	<p>Response #1160-6: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1160-4 (ID 2256): <i>The front range of the mountains near Denver has for the most part, remained pristine. Several attempts have been made to bring rock quarries into our mountain community in past years. Rock quarries have no place in a quiet mountain community, and the residents have fought and won before. The Gross Dam Expansion promises us no less than 10 rock quarries in this area. Of major concern is the location of a known fault line in the area of Gross Dam. Increasing the size of Gross Dam, could increase the danger to the city of Boulder below. Wildlife is abundant in the area, including a return of the historic migration of elk to the area. The increased heavy traffic, not to mention blasting of rock quarries could destroy not only the quiet of our mountain community, but this wildlife area as well. Property values are also likely to be affected negatively by this proposed expansion of Gross Reservoir. In a time not only of an uncertain economy, but increased knowledge of possible global warming, this proposed expansion is worrisome.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>FROM : ISABELLA'S LEFT FAX NO. : [REDACTED] Feb. 26 2010 05:20PM PG</p> <p>Please consider these comments regarding the amendment to the existing license of Gross Dam Reservoir to increase the size of the Dam.</p> <p>Sincerely,</p> <p>Elden J. Yokooji [REDACTED]</p> <p>FEB-26-2010 05:10PM From: [REDACTED] ID: TRI LAKES Page: 003 R=91%</p>	<p>Response #1160-4:</p> <p>Only one rock quarry is proposed for the Gross Reservoir area, located on the southeast shore of the reservoir, north of the proposed auxiliary spillway. A portion of this quarry would be situated below the existing normal water line of the reservoir. Quarry excavation below the normal water line would occur as the reservoir is lowered during normal operation. The reservoir would not be lowered to accommodate construction activities. Post-construction, a portion of the quarry site would remain visible above the enlarged reservoir's water surface. Operations at the rock quarry would be subject to county requirements limiting the amount of noise disturbance to local residents. An additional mitigation measure has been added to FEIS Section 5.17 to address reclamation of the quarry site. The proposed quarry site would be primarily located on USFS land; therefore, Denver Water would work closely with the USFS to ensure appropriate reclamation of this site and any alternative quarry sites.</p> <p>The location of the quarry is illustrated on DEIS Figure 2-3 and details regarding the operation of the quarry are provided in DEIS Section 2.3. Visual impacts from the quarry at Gross Reservoir are discussed in DEIS Section 4.15.1.</p> <p>Blasting for excavation and construction at the Gross Reservoir Dam would create relatively minor shock waves, and may cause slight vibrations to be felt in the nearby area. The blasting vibrations would not affect groundwater levels or the aquifers from which the wells draw groundwater. Studies of blasting effects at other sites have shown that the vibratory shock waves generally do not have any effect on water wells.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>However, some studies have noted the possibility that if there were an old or poorly constructed well located within 300 feet of the blasting zone, the blasting vibrations could cause corrosion-weakened pipe in the well to bend or collapse. Other studies have noted that blasting vibrations could cause a slight agitation of the well water or water in rock fractures near the well to surge, which could cause a temporary suspension of fine grained sediment in the well. For wells very near the blasting, this shaking could cause the well water to appear slightly turbid for a short time until water from the well bore is flushed out. There are no known residences or water wells within 300 feet of the dam. Thus, there is not likely to be any effect on water wells in the area due to the blasting needed to raise the dam at Gross Reservoir.</p> <p>The water loads at Gross Reservoir would not change the water content in faults at depths of a few miles, thus increased seismic activity from lubricated faults is not anticipated. However, stress on the faults located at or near the reservoir site may increase or change, and result in negligible seismic activity. In summary, the proposed dam raise and expansion of Gross Reservoir may increase the potential for reservoir-induced seismicity, but not at substantial levels. Potential issues related to geologic resources and dam safety would be addressed through geotechnical and seismic studies in the design and construction phases of the Project.</p> <p>Elk are present in the Gross Reservoir area during the winter, including two types of crucial seasonal habitats (severe winter range and winter concentration areas). The loss of elk crucial seasonal habitats represents a small proportion of the habitat currently available to the Clear Creek elk herd within 3 miles from the reservoir shoreline. Therefore, reservoir expansion under the Proposed Action is unlikely to have long-term impacts on the elk herd and is considered a moderate impact.</p>




Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Other short-term, direct impacts to big game would occur from potential collisions with haul trucks along haul routes on SHs 72, 93, and 128 due to the increase in traffic from construction. Although collisions are a safety concern, collisions would have a negligible effect on big game populations.</p> <p>Confined charge blasting would be implemented for dam construction to minimize noise. Other anticipated noise impacts as a result of construction of the Proposed Action are predicted to be temporary and moderate. Construction activities would be limited in conformance with applicable local ordinances, and would be in conformance to applicable noise emission standards.</p> <p>According to the analysis presented in DEIS Section 4.17.1.5, property values and property tax rates for private residents and businesses in Boulder County, Denver Metropolitan area counties, and Grand County would not be affected by the Proposed Action. An expanded analysis of impacts to communities surrounding Gross Reservoir is included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Comment #1160-3 (ID 2255): <i>It appears the main thrust behind this expansion is the increased expansion and sprawl of particularly the city of Arvada, and other entities along the front range. The Denver Water Board does not have a good history of conserving water. Indeed, Denver has one of the poorest records in use of water within the western states over many decades. Increased growth and periods of drought have not changed the habits of the Denver Water Board. Why should the very essence of our lives as mountain residents come under the attack of the Denver Water Board with this expansion? We, as residents of Coal Creek Canyon, will be subjected to heavy traffic, no less than 10 rock quarries, destruction of a pristine area</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>and wildlife, and possible loss of property values, to satisfy the "needs" for the urban sprawl.</i></p> <p>Response #1160-3: Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought. Arvada submitted a conservation plan to the State of Colorado and it was approved in September of 2012.</p> <p>As stated in 33 CFR Part 320, which are, in part, the Federal regulations governing the Corps' review of Section 404 of the CWA, the decision whether to issue a Section 404 Permit is based on an evaluation of the probable impacts of the proposed activity on the public interest. In other words, the Corps will conduct a public interest review weighing the impacts and benefits of the Project as part of its Section 404 Permit evaluation.</p> <p>Comment #1160-1 (ID 2254): <i>Please consider these comments regarding the amendment to the existing license of Gross Dam Reservoir to increase the size of the Dam.</i></p> <p>Response #1160-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1161 Ben G. Zastrow</p>	<p>Granby, CO February 23, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 South Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin,</p> <p>Please register my strong opposition to the Moffat Firing Project that is to being proposed by Denver Water.</p> <p>If, in fact, Denver Water is allowed to divert 80% of the Fraser River flow to the front range it will destroy the recreational and environmental value of the river. It is doubtful that any natural stream can survive with only 20% of its flow.</p> <p>All of the major front range cities are making every effort to dry-up the rest of the state so that they can provide water for, seemingly, endless development and the wastefully liberal watering of expansive bluegrass lawns. When some strict water restrictions and sensible conservation programs could eliminate the need for the Firing Project it seems environmentally unsound to allow it to proceed.</p> <p>I hope that your office will carefully consider the potentially lethal damage this water diversion will do to the Fraser River and to the streams of western Colorado before you approve this EIS draft.</p> <p>Sincerely,  Ben G. Zastrow (resident of Grand County for 40 years) </p> 	<p>Comment #1161-1 (ID 2238): <i>Please register my strong opposition to the Moffat Firing Project that is to being proposed by Denver Water. If, in fact, Denver Water is allowed to divert 80% of the Fraser River flow to the front range it will destroy the recreational and environmental value of the river. It is doubtful that any natural stream can survive with only 20% of its flow.</i></p> <p>Response #1161-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1161-2 (ID 2237): <i>All of the major front range cities are making every effort to dry-up the rest of the state so that they can provide water for, seemingly, endless development and the wastefully liberal watering of expansive bluegrass lawns. When some strict water restrictions and sensible conservation programs could eliminate the need for the Firing Project it seems environmentally unsound to allow it to proceed.</i></p> <p>Response #1161-2: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1161-3 (ID 2236): <i>I hope that your office will carefully consider the potentially lethal damage this water diversion will do to the Fraser River and to the streams of western Colorado before your approve this EIS draft.</i></p> <p>Response #1161-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1164 David C. and Susan J. Barnett</p>	<div style="text-align: center;">  </div> <p style="text-align: center;">David C and Susan J Barnett Mailing address: [REDACTED]</p> <p>February 10, 2010</p> <p>Mr. Scott Franklin US Army Corps of Engineers 9307 South Wadsworth Boulevard Littleton, Colorado 80128-6901</p> <p>Dear Mr. Franklin:</p> <p>We are residents and home/property owners in Coal Creek Canyon (Golden, Boulder County) on Gross Dam road. We are much more than merely concerned about the proposed expansion of Gross Dam. You could say we are infuriated.</p> <p>As impacted citizens of the nation, state and our local community I will address these concerns point by point and look forward to your thoughtful response.</p> <p>L. Traffic. The choice to haul gravel and rocks in and lumber out for a period of four to six years in 18 wheeler trucks from SH 93, up SH 72 is an outrage. We live [REDACTED] where there is room to construct 1-2 sidings. One rail car will equal 5-6 trucks worth of heavy freight, with a relative minimum of carbon "footprint" up to 70 plus trucks per day. We know this route; we drive it a few times between us every day. There is no way, in our opinion that this burden of traffic can be construed as safe. There are no pull-offs for these massive trucks on <u>highway 72</u> much less Gross Dam. There are sharp curves and switchbacks on two very narrow lanes with only one passing zone long enough for a normal vehicle to pass much less the unlikely-hood that these trucks can maneuver the lanes without running over the double yellow lines nor can they safely utilize the 40-45 mph speed limits. <u>Gross Dam Road</u> is even narrower and the traffic on Gross Dam while not heavy is more considerable than you might think. Gross Dam Road is lined with <u>residences</u> where we treasure our tranquility. The amount of dust that will be created, even if watered, will destroy our lifestyle (for 5-6 years!). Pollution and the stench of diesel engines will fill the air. We live on a switchback that is so sharp that a 4 wheel drive Subaru can maneuver it only with caution at 5 mph. There is no room for error and a large truck will take up a considerable majority of the narrow road. <u>This road must be paved</u> prior to any construction at Gross Dam. Bikers (both bicycles and motorcycles will be forced off the road. Walking along the side of the road as most of our neighborhood residents do with families including</p>	<p>Comment #1164-12 (ID 4407): <i>We are residents and home/property owners in Coal Creek Canyon (Golden, Boulder County) on Gross Dam road. We are much more than merely concerned about the proposed expansion of Gross Dam. You could say we are infuriated. As impacted citizens of the nation, state and our local community I will address these concerns point by point and look forward to your thoughtful response.</i></p> <p>Response #1164-12: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1164-9 (ID 4408): <i>Traffic. The choice to haul gravel and rocks in and lumber out for a period of four to six years in 18 wheeler trucks from SH 93, up SH 72 is an outrage. We live [REDACTED] where there is room to construct 1-2 sidings. One rail car will equal 5-6 trucks worth of heavy freight, with a relative minimum of carbon "footprint" up to 70 plus trucks per day. We know this route; we drive it a few times between us every day. There is no way, in our opinion that this burden of traffic can be construed as safe. There are no pull-offs for these massive trucks on highway 72 much less Gross Dam. There are sharp curves and switchbacks on two very narrow lanes with only one passing zone long enough for a normal vehicle to pass much less the unlikely-hood that these trucks can maneuver the lanes without running over the double yellow lines nor can they safely utilize the 40-45 mph speed limits. Gross Dam Road is even narrower and the traffic on Gross Dam while not heavy is more considerable than you might think.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>children and dogs and horses will be taking their lives in their hands. The wear, tear and destruction to highways 128, 93, 72 and Gross Dam will be considerable. There WILL be accidents and I am afraid there will be civil disobedience eventually as a result. Perhaps the Army Corps of Engineers and FERC do not realize that this is a populated community who stand to gain nothing from the dam expansion and <u>have been left out of the process</u>. This is a commuter community to a very large extent with one way in and out of our community to jobs in Denver, Boulder, Arvada, Golden etc. who will suffer a great deal due to this hideous traffic congestion. We would like to see these <u>safety issues</u> addressed. We live with the higher traffic in the summertime due to recreational use of the reservoir but that has been an advantage to our area – and now we will lose that as well.</p> <p>II. The Process to date. The Denver Water Board has made little to no effort to put this matter before the people affected in our community, scheduling meetings at odd hours for a commuter community with very, very little effort to publicize it. Then at one meeting we were given 3 minutes to speak individually after 1 ½ minutes of a required introduction of one's self. All we have seen are glossy folders and presentations with little substance. The marketing effort has been more like a sneaky and slick subterfuge effort for the many thousands of us from the edge of western Arvada to Pinecliff, Magnolia and Crescent. Like a well kept secret.....Having said that, I will admit that the meeting in Nederland in February this year was well handled by the Denver Water Board albeit it didn't convince any of the listeners of the dam's merit.</p> <p>III. The Noise. I would like to know what <u>noise mitigation</u> can possibly address the hordes of giant trucks, blasting at the dam, giant earth moving machines in dry, high altitude air. I can hear a siren miles away and dogs barking fur at least a couple of miles. Not to mention the noise of Jake-brakes, the roar of huge diesel engines, on our roads and in front of our homes on Gross Dam Road, most of which are quite close to the road.</p> <p>IV. The Pollution. 20,000 trees are expected to be taken out. Many of them will be burned on site. Nice carbon footprint there! The carbon sink will be gone. The dust raised and the exhaust from hundreds of trucks will be vast. I demand to know <u>what mitigation efforts will be in place</u> to avoid making our community suffer from all this air pollution while destroying natural resources not even salvaging the timber. The resulting quarry to be unreclaimed is also an intolerable result.</p> <p>V. Prove to us:</p> <ul style="list-style-type: none"> • That this will not negatively impact the values of our homes? Of course it will. • That Denver Water, who has an excellent record of water conservation, cannot do even better by further limiting the watering of lawns and city landscaping. The Board itself I understand projects saving 16,000 MORE acre feet by 2016. 	<p><i>Gross Dam Road is lined with residences where we treasure our tranquility. The amount of dust that will be created, even if watered, will destroy our lifestyle (for 5-6 years!). Pollution and the stench. of diesel engines will fill the air. We live on a switchback that is so sharp that a 4 wheel drive Subaru can maneuver it only with caution at 5 mph. There is no room for error and a large truck will take up a considerable majority of the narrow road. This road must be paved prior to any construction at Gross Dam Bikers (both bicycles and motorcycles will be forced off the road, Walking along the side of the road as most of our neighborhood residents do with families including children and dogs and horses will be taking their lives in their hands. The wear, tear and destruction to highways 128, 93, 72 and Gross Dam will be considerable. There WILL be accidents and I am afraid there will be civil disobedience eventually as a result. Perhaps the Army Corps of Engineers and FERC do not realize that this is a populated community who stand to gain nothing from the dam expansion and have been left out of the process. This is a commuter community to a very large extent with one way in and out of our community to jobs in Denver, Boulder, Arvada, Golden etc. who will suffer a great deal due to this hideous traffic congestion. We would like to see these safety issues addressed. We live with the higher traffic in the summertime due to recreational use of the reservoir but that has been an advantage to our area - and now we will lose that as well.</i></p> <p>Response #1164-9: Denver Water hired an independent consultant to evaluate using the railroad to transport material to the site. The consultant found that using the railroad would not be feasible for the Project because of the technical, logistical, topographical and cost problems associated with unloading material at the existing railroad siding.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<ul style="list-style-type: none"> ▪ Just a few minutes less of watering lawns per day would not come close to solving the problem of the alleged shortfall. ▪ Prove to me that that the projected shortfall is 18,000 AF by 2030 (see point above) and this is not over-kill. ▪ Prove to me that the projected shortfall included the increase at Reuter-Hess and Chatfield reservoirs. ▪ If Denver could conserve as efficiently as Colorado Springs this would all be a moot point. ▪ Prove to me there would not be permanent damage to the fisheries and water flow of the water stolen from the Western slope, in particular the Fraser and Colorado Rivers, but also South Boulder Creek on the Eastern slope. ▪ And since when is 5-6 years of construction called <u>temporary</u>? ▪ Prove to me that there will be no permanent negative impact on elk and deer migration, the fisheries and all of our non human neighbors. Has an impact study been done? ▪ Prove to me that there is nothing untoward in the offer of a grant of 3,000 acre feet to Arvada other than a political gift to develop the elk migration herding lands at the foot of Coal Creek Canyon? Makes you wonder what other behind the scenes deals are up or have already been offered? <p style="text-align: center;">Sincerely,</p> <p style="text-align: center;">David and Susan Barnett</p> <div style="background-color: black; width: 150px; height: 60px; margin: 10px auto;"></div> <p>cc: Sec. Kimberly Bose, Federal Energy Regulatory Commission The Honorable Mayor John Hickenlooper (City of Denver) The Denver Water Board The Honorable Mayor Susan Osborne and the Boulder City Council Boulder County Commissioners The Boulder Camera The Honorable Colorado Representative Claire Levy The Honorable US Senator Mark Udall The Honorable US Representative Jared Polis The Honorable US Secretary of the Interior, Secretary Ken Salazar</p>	<p>Based on discussions with UPRR, the consultant determined that new infrastructure would need to be constructed to accommodate the rail cars and avoid conflicts with the coal train traffic on the mainline; handle unloading of the various materials into trucks, which would be needed to transport the material to the dam site; and avoid conflicts with traffic on Gross Dam Road. A new siding would be very difficult and expensive (approximately \$20 million) to construct due to the constraints of the existing topography and would require a significant amount of material to be hauled to the siding by truck on SH 72.</p> <p>CDOT is responsible for maintenance of the State highways such as SH 72. Boulder County is responsible for maintenance of county roads, such as CR 77S, CR 132, etc. Boulder County maintains Gross Dam Road (CR 77S) from SH 73 to the railroad tracks. Denver Water currently maintains Gross Dam Road from the railroad track crossing to Flagstaff Road. During construction, Denver Water or its contractor would be responsible for maintaining all of Gross Dam Road. Denver Water would work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces the National Ambient Air Quality Standards (NAAQS). Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Recreational facilities at Gross Reservoir would be replaced in-kind above the high water line. The daily and seasonal operations of Gross Reservoir should not change during construction, as the reservoir would fluctuate based on water demand, not construction activities. Denver Water is preparing a recreation plan to keep recreational facilities open as much as possible without compromising public safety or construction progress. Certain areas would be restricted or temporarily closed during construction.</p> <p>The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Comment #1164-2 (ID 4409): <i>The Process to date. The Denver Water Board has made little to no effort to put this matter before the people affected in our community, scheduling meetings at odd hours for a commuter community with very, very little effort to publicize it. Then at one meeting we were given 3 minutes to speak individually after 1 1/2 minutes of a required introduction of one's self. All we have seen are glossy folders and presentations with little substance. The marketing effort has been more like a sneaky and slick subterfuge effort for the many thousands of us from the edge of western Arvada to Pinecliff, Magnolia and Crescent. Like a well kept secret Having said that, I will admit that the meeting in Nederland in February this year was well handled by the Denver Water Board albeit it didn't convince any of the listeners of the dam's merit.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1164-2: The Corps maintains a Project mailing list comprised of the general public (i.e., citizens, private companies, non-governmental organizations [NGOs], etc.) that attended the scoping meetings as well as current contacts at the appropriate local, State, and Federal agencies. Informational post cards describing the public hearings, including the meeting in Boulder, were distributed to members of the Project mailing list on October 28, 2009.</p> <p>Information on the public hearings was also distributed as display ads in the following local newspapers:</p> <ul style="list-style-type: none"> • Denver Post, 10/30/09 and 11/30/09 • Sky-Hi Daily News, 10/30/09 and 11/30/09 • Mountain Messenger (Coal Creek Canyon), November Issue • Highlander Monthly, November Issue • Boulder Daily Camera, 10/30/09 and 11/30/09 <p>Public hearing information was also displayed on the Corps' Project website at https://www.nwo.usace.army.mil/html/od-tl/eis/moffat-eis.html.</p> <p>Denver Water maintains a Project mailing list comprised of the general public, groups, and governmental entities who request to join. Sign-up sheets are present at all public meetings as well as on Denver Water's web page. Information on the public hearings for the Federal Energy Regulatory Commission (FERC) process was also distributed as display ads in the following newspapers (July 2008): Sky-High News, Highlander, and Daily Camera. Meetings were held on the following dates at these locations (July 2008): Gross Reservoir, Coal Creek Canyon Community Center (Cresant Village), Spice</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>of Life Event Center (Boulder), and Trinity United Methodist Church (Denver).</p> <p>Public hearing information was also displayed on Denver Water's website at http://www.denverwater.org/SupplyPlanning/Planning/FutureWaterSupply/WaterSupplyProjects/Moffat/. Since the release of the DEIS, Denver Water and other groups have held additional public meetings in the Coal Creek Canyon and Boulder areas in order to develop a mitigation plan and answer questions from participants.</p> <p>Comment #1164-10 (ID 4410): <i>The Noise. I would like to know what noise mitigation can possibly address the hordes of giant trucks, blasting at the dam, giant earth moving machines in dry, high altitude air. I can hear a siren miles away and dogs barking for at least a couple of miles. Not to mention the noise of Jake-brakes, the roar of huge diesel engines, on our roads and in front of our homes on Gross Dam Road, most of which are quite close to the road.</i></p> <p>Response #1164-10: All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1.</p> <p>Construction activities (e.g., tree removal, helicopters, concrete batch plant, gravel pit) would not operate every day for 5 years. For example, tree removal is expected to take 6 to 8 months (DEIS Section 2.3.2.1), a majority of the quarry activity would take place prior to construction (DEIS Section 2.3.2.1), and blasting would likely take place at the end of the day.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1164-5 (ID 4411): <i>The Pollution. 20,000 trees are expected to be taken out. Many of them will be burned on site. Nice carbon footprint there! The carbon sink will be gone. The dust raised and the exhaust from hundreds of trucks will be vast. I demand to know what mitigation efforts will be in place to avoid making our community suffer from all this air pollution while destroying natural resources not even salvaging the timber. The resulting quarry to be unreclaimed is also an intolerable result.</i></p> <p>Response #1164-5: Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p> <p>GHG emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>As described in DEIS Section 2.3.2.1, a traditional slash pile and burn approach to disposing the residue is not viable at Gross Reservoir due to air quality concerns and regulations. Rather, Denver</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Water would implement the following possible alternative forest residue disposal options:</p> <ol style="list-style-type: none"> 1 Burning in an air curtain destructor. 2. Grinding whole trees and hauling to a landfill. 3. Loading forest residue into trucks and hauling to a landfill. <p>Some of the forest residue could also be turned into products (e.g., sawtimber, firewood, etc.) and the remaining unmerchantable material would be disposed of by a combination of the three options. All opportunities to utilize some of the material to reduce the residue volume would be explored by Denver Water.</p> <p>Denver Water intends to convert as much of the timber as possible into merchantable forest products such as sawtimber and firewood to reduce the amount of residue that needs to be disposed.</p> <p>As described in FEIS Section 2.3.2.1, mitigation for the quarry site includes a range of techniques, such as rock sculpting (shaping the exposed rock to mimic a natural rock face) and selective planting to break up the scale of the exposed area and soften the contrasts with adjacent areas. The use of rock staining would also be considered, provided a determination by Denver Water that its application would not create any water quality concerns. An additional mitigation measure has been added to FEIS Section 5.7.7 to address reclamation of the quarry site. The proposed quarry site and any alternative quarry sites would be located on USFS and Denver Water land. Denver Water would work with the USFS to ensure appropriate revegetation of these sites based on site conditions.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1164-11 (ID 4412): <i>Prove to us: • That this will not negatively impact the values of our homes? Of course it will.</i></p> <p>Response #1164-11: An expanded analysis of impacts to communities surrounding Gross Reservoir was included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Comment #1164-14 (ID 4413): <i>That Denver Water, who has an excellent record of water conservation, cannot do even better by further limiting the watering of lawns and city landscaping. The Board itself I understand projects saving 16,000 MORE acre feet by 2016.</i></p> <p>Response #1164-14: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1164-15 (ID 4414): <i>Just a few minutes less of watering lawns per day would not come close to solving the problem of the alleged shortfall.</i></p> <p>Response #1164-15: Please see the response to Comment ID 4413.</p> <p>Comment #1164-3 (ID 4415): <i>Prove to me that that the projected shortfall is 18,000 AF by 2030 (see point above) and this is not over-kill.</i></p> <p>Response #1164-3: The data and the assumptions used to develop the demand projections for the EIS have been reviewed and revised to consider currently available data as appropriate as part of the model update and reanalysis for the FEIS.</p> <p>The Corps completed a technical memorandum in 2004 entitled Supplemental Evaluation of Denver Water Demand Projections for the Moffat Project EIS. This document is included in Appendix A of the DEIS. The Purpose and Need for the Moffat Project includes the anticipated amount of water needed to serve customers in Denver and to serve the permanent contracts Denver Water has outside Denver.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1164-4 (ID 4416): <i>Prove to me that the projected shortfall included the increase at Reuter-Hess and Chatfield reservoirs.</i></p> <p>Response #1164-4: Both Rueter-Hess Reservoir (ID 199P) and Chatfield Reservoir (ID 215) were included in the alternative screening evaluation. Rueter-Hess Reservoir was eliminated by Screening Criterion LG3 (must be outside lands or sites known to be integral to development plans of other entities). Rueter-Hess Reservoir is owned and operated by Parker Water & Sanitation District, and is located outside of Denver Water's service area. It is not practical to convey Denver Water's West Slope water to Rueter-Hess Reservoir for storage and pump it back for delivery to the north end of Denver Water's system. Chatfield Reservoir was eliminated by Screening Criteria LI1 (Logistics – Institutional Issues) (must not require Congressional action). To consider raising Chatfield dam would require Congressional action to authorize. The Corps is currently studying alternatives to reallocate the storage in Chatfield Reservoir. The Draft Feasibility Study/EIS for the Chatfield Reservoir Storage Reallocation was issued for public comment in June 2012. There are currently 15 participants that would potentially benefit from the yield associated with reallocating a portion of the storage in Chatfield Reservoir. Denver Water is not one of these entities. The Project was initiated in 1986 and the completion date is unknown. It is reasonable to assume that this alternative would not meet criterion PN3 (Purpose and Need) (provide a solution by 2016) or criterion LP2 (Logistics – Practicality Issues) (supply at least 20% of the firm yield required) since the yield of reallocation up to 20,600 AF of storage would be dividing among 15 participants, not including Denver Water.</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1164-16 (ID 4417): <i>If Denver could conserve as efficiently as Colorado Springs this would all be a moot point.</i></p> <p>Response #1164-16: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1164-6 (ID 4403): <i>Prove to me there would not be permanent damage to the fisheries and water flow of the water stolen from the Western slope, in particular the Fraser and Colorado Rivers, but also South Boulder Creek on the Eastern slope.</i></p> <p>Response #1164-6: The DEIS and the FEIS both discuss flow changes and diversions with the Project and the potential impacts to habitat for aquatic life and fish populations. This includes evaluations of water temperatures, sedimentation, channel maintenance, and invasive species. Mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>Comment #1164-1 (ID 4404): <i>And since when is 5-6 years of construction called temporary?</i></p> <p>Response #1164-1: The CEQ regulations specify that the description of impacts in an EIS should identify how short-term uses of the environment would affect long-term productivity of resources. Short-term (temporary) is defined as the construction period through final reclamation, which is assumed to take up to 5 years. Long-term refers to the period after the Moffat Project is completed and mitigation measures are in place. Construction impacts were classified at</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>"temporary" since they would occur during the temporary construction period of less than 5 years.</p> <p>Comment #1164-7 (ID 4405): <i>Prove to me that there will be no permanent negative impact on elk and deer migration, the fisheries and all of our non-human neighbors. Has an impact study been done?</i></p> <p>Response #1164-7: Please see the response to Comment ID 4403.</p> <p>More information has been added to the wildlife analysis in FEIS Section 5.9 regarding elk and deer migration.</p> <p>Comment #1164-13 (ID 4406): <i>Prove to me that there is nothing untoward in the offer of a grant of 3,000 acre feet to Arvada other than a political gift to develop the elk migration herding lands at the foot of Coal Creek Canyon? Makes you wonder what other behind the scenes deals are up or have already been offered?</i></p> <p>Response #1164-13: DEIS Section 1.4.1.4 discussed the IGA with Arvada. The 3,000 AF of water for Arvada is the result of an IGA signed in 1999. This IGA was entered into when Denver Water purchased the Leyden Gulch site as a possible location for a reservoir (Leyden Gulch Reservoir is one of the alternatives evaluated in this EIS). Since Denver Water is a public utility, all "deals" are subject to open record laws and are available for review upon request.</p>

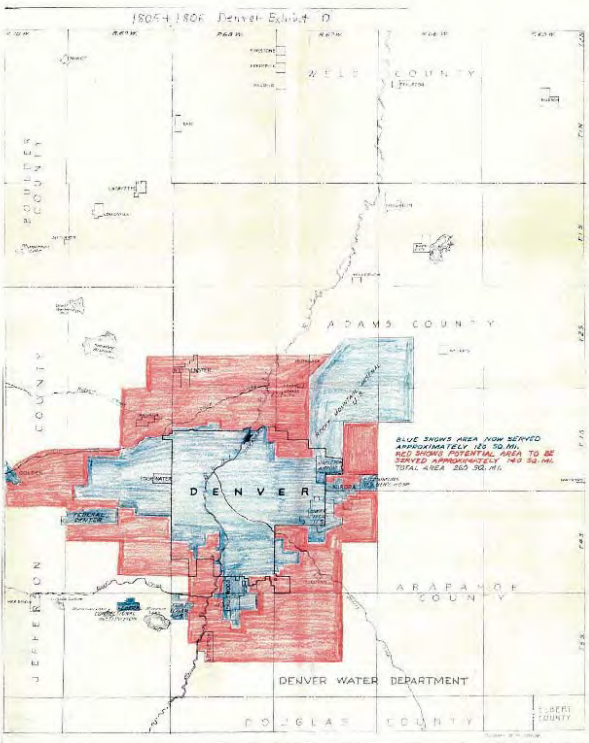
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1171 Matt Booth</p>	<div style="text-align: center;">  </div> <p>March 17, 2010</p> <p>Scott Franklin, Moffat EIS Project Mgr US Army Corps of Engineers 9307 South Wadsworth Blvd, Littleton, CO 80128 E-mail: moffat.eis@usace.army.mil Fax: 303-979-0602</p> <p>Re: Draft EIS and Public Notice for 404 Permit Application NWO-2002-80762-DEN</p> <p>Dear Mr. Franklin:</p> <p>I am writing this letter to submit my comments and to request clarification on Denver Water's Moffat DEIS currently being prepared by the US Army Corps of Engineers.</p> <p>Denver's Mayor John Hickenlooper spoke to the Colorado Environmental Coalition's May 2009 "Rebel with a Cause" Gala about the new Board members he has appointed and their commitment to him. Denver Water Board committed to the Mayor that Denver Water will cut 2000 level per capita consumption levels by 2015 by 22%. Denver Water will then look at how to get more water back to the West Slope for their use. How can the Mayor make that promise while the DEIS says more water is needed from the West Slope? If per capita consumption levels are reduced by 22%, how much water does this free up for the West Slope?</p> <p>Denver Water, Aurora and the South Metro Water Authority (SM) have entered into a collaborative agreement, termed the WISE partnership. Why wasn't this agreement to share water and infrastructure quantified or studied in the Moffat EIS process?</p> <ul style="list-style-type: none"> • This IGA between Aurora, DW and SM includes a confidential section as to the water planning among these entities. Are any of their studies available for review by the public? If not, why not? Has the Corp reviewed them? Were the combined operations of the WISE partners analyzed in the cumulative impacts section of the DEIS? • Since DW has offered over 40,000 A.F. of extra water as a part of the WISE Agreement, why doesn't DW use this water for the shortfall identified in the Moffat EIS, rather commit it to SM and Aurora? If DW has so much reusable effluent available, why did the DEIS only look at alternatives with 5000 A.F.? Please address this inconsistency. • How does the conjunctive use of WISE water during droughts after the period of record in DW's hydrologic modeling? Was this change included in the hydrologic analysis? • How are the needs of SM and Aurora included in the Moffat EIS since they are the beneficiaries of Denver reuse water? <p>The Blue River Decree dictates how Denver Water (DW) is to divert water from the West Slope. It is the result of a dispute dating to 1937. On October 12, 1955, the Federal Court entered a final decree and judgment (the "Blue River Decree") which incorporated the stipulations executed by the parties involved. The Blue River Decree authorizes Denver</p>	<p>Comment #1171-1 (ID 4303): <i>I am writing this letter to submit my comments and to request clarification on Denver Water's Moffat DEIS currently being prepared by the US Army Corps of Engineers. Denver's Mayor John Hickenlooper spoke to the Colorado Environmental Coalition's May 2009 "Rebel with a Cause" Gala about the new Board members he has appointed and their commitment to him. Denver Water Board committed to the Mayor that Denver Water will cut 2000 level per capita consumption levels by 2015 by 22%. Denver Water will then look at how to get more water back to the West Slope for their use. How can the Mayor make that promise while the DEIS says more water is needed from the West Slope? If per capita consumption levels are reduced by 22%, how much water does this free up for the West Slope?</i></p> <p>Response #1171-1: Denver Water has a nationally and internationally recognized water conservation program. In 2007, 71% of the conservation dollars in the State of Colorado were spent by Denver Water. The Denver Water Board revised its conservation goals in order to capture and hold onto the efficiencies gained during the drought. The revised conservation goal seeks to reduce customer use by 22%, from pre-drought levels, by the year 2016. Since that goal was set, Denver Water customers have reduced water use by 20% due to conservation programs promoted by Denver Water. Per capita water use has decreased significantly since 1980 and would continue to decline under the current conservation plan. However, growth in the number of people and jobs would require more water than Denver presently can supply, even with conservation.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>to divert West Slope water to the Denver Metropolitan area, as identified by a map attached to the Decree as an Exhibit. Denver Water must reuse water in their service area to comply with court orders. If DW is complying with the Blue River Decree, how was that accounted for in the DEIS?</p> <ul style="list-style-type: none"> • The attached map shows the extent of Denver Water's service area, as decided in the Blue River Decree. If DW is providing service outside the line on the map how does that impact justification for the need for new diversions from the Fraser River Basin? How can DW continue to expand its water service area without violating the Blue River Decree? • Will DW accept Denver Basin water from the south metro area as exchange water? Does this comply with the Blue River Decree? Could Denver Basin water be used as an alternative to the Moffat Project? <p>Thank you for your consideration of my comments. I look forward to receiving answers and clarifications.</p> <p>Matt Booth </p>	<p>The CRCA, which is described in FEIS Appendix M, describes how water would be put back into streams on the West Slope during times it was historically diverted. This agreement also identifies other cooperative measures which would increase stream flows and improve the aquatic environment. Additionally, the Moffat Project – Fish and Wildlife Enhancement Plan, which is also described in FEIS Appendix M, identifies \$7.5 million for aquatic habitat improvement on the Colorado River below Windy Gap Reservoir.</p> <p>Comment #1171-2 (ID 4304): <i>Denver Water, Aurora and the South Metro Water Authority (SM) have entered into a collaborative agreement, termed the WISE partnership. Why wasn't this agreement to share water and infrastructure quantified or studied in the Moffat EIS process? • This IGA between Aurora, DW and SM includes a confidential section as to the water planning among these entities. Are any of their studies available for review by the public? If not, why not? Has the Corp reviewed them? Were the combined operations of the WISE partners analyzed in the cumulative impacts section of the DEIS?</i></p> <p>Response #1171-2: There is currently insufficient information available to incorporate the Water Infrastructure and Supply Efficiency (WISE) Project in Denver Water's PACSM because a variety of possible scenarios are being considered and evaluated by the Project proponents. A qualitative evaluation of WISE was added to FEIS Section 4.6.1, which describes the purpose of the WISE project, the participants, and generally how it would operate.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>While WISE would have participation from several water providers, WISE would use, in part, the same water (unused Denver Water reusable effluent) as Moffat Project Alternatives 8a and 10a and various aquifers in the regions to store water similar to Alternative 10a. Furthermore, as currently designed, the WISE project would not provide water to the north end of Denver Water's Collection System.</p> <p>Comment #1171-3 (ID 4305): <i>Since DW has offered over 40,000 A.F. of extra water as a part of the WISE Agreement, why doesn't DW use this water for the shortfall identified in the Moffat EIS, rather commit it to SM and Aurora? If DW has so much reusable effluent available, why did the DEIS only look at alternatives with 5000 A.F.? Please address this inconsistency.</i></p> <p>Response #1171-3: Denver Water has identified "up to" 30,000 AF of excess reusable effluent for the WISE project in some years. On average, Denver Water has about 8,000 AF on average of excess reusable effluent per year – this is the amount used when developing Alternatives 8a and 10a for the DEIS.</p> <p>The partnership between Denver Water, Aurora, and the South Metro Water Supply Authority would make use of excess reusable water as it becomes available from time to time. When available, and on a space available basis, the excess reusable water would be pumped from the lower South Platte River via Aurora's Prairie Water pipeline (north of Denver) to water users upstream (south of Denver). The WISE project makes use of the same reusable water considered for Alternatives 8a, 10a, and other alternatives considered in the DEIS. While the WISE project could provide Denver Water some firm yield, it does not deliver water to where Denver Water needs the extra supply (north end). Alternatives 8a and 10a did deliver this water to the north end and are considered practicable alternatives in this EIS.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1171-4 (ID 4306): <i>How does the conjunctive use of WISE water during droughts alter the period of record in DW's hydrologic modeling? Was this change included in the hydrologic analysis?</i></p> <p>Response #1171-4: Conjunctive use of WISE water does not alter the period of record used in Denver Water's hydrologic modeling. The model study period used in the DEIS (from 1947 through 1991) provides a broad range of average, wet, and dry flow conditions for evaluating hydrologic impacts. The potential of extending the study period and/or using additional periods for comparative analyses was considered in relation to whether these alternative hydrologic inputs would change conclusions regarding the yield of the Moffat System and/or change conclusions related to effects on hydrologic and other resource areas. With regard to inclusion of more recent hydrology, Denver Water would not divert additional water due to the proposed Moffat Project in drought years like 2002 because Denver Water would have already diverted the maximum amount of water physically and legally available under their existing water rights without additional storage in their system. Denver Water's analysis also concluded that, for Denver Water's system, the mid-1950's drought is a more severe drought period than the recent drought. In other words, given full-use water demands, supplies, and facilities, there would be less water in Denver Water's storage at the end of the 1950's drought than at the end of 2002. The model study period used in the DEIS also addressed the carry-over and recovery effects of additional Denver Water diversions in wet years following dry years like 2002 and 2003. The DEIS study period includes several series of dry years followed by wet years, which illustrate the effects of increased diversions to refill storage. For example, the DEIS study period</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>includes the mid-1950's drought followed by 1957 (a wet year), 1963 and 1964 (dry years) followed by 1965 (wet year), and 1981 (dry year) followed by several wet years in the mid-1980's. These sequences of years allow for an evaluation of impacts associated with diverting additional water in wet years following dry years.</p> <p>There is currently insufficient information available to incorporate the WISE Project in Denver Water's PACSM because a variety of possible scenarios are being considered and evaluated by the Project proponents. A qualitative evaluation of this Project was added to FEIS Section 4.3.1, which describes the purpose of the Project, the participants, and generally how it would affect the timing and magnitude of flows within the study area considered for the Moffat Project EIS.</p> <p>Comment #1171-5 (ID 4307): <i>How are the needs of SM and Aurora included in the Moffat EIS since they are the beneficiaries of Denver reuse water?</i></p> <p>Response #1171-5: Please see the response to Comment ID 4304.</p> <p>Comment #1171-6 (ID 4308): <i>The Blue River Decree dictates how Denver Water (DW) is to divert water from the West Slope. It is the result of a dispute dating to 1937. On October 12, 1955, the Federal Court entered a final decree and judgment (the "Blue River Decree") which incorporated the stipulations executed by the parties involved. The Blue River Decree authorizes Denver to divert West Slope water to the Denver Metropolitan area, as identified by a map attached to the Decree as an Exhibit. Denver Water must reuse water in their service area to comply with court orders. If DW is complying with the Blue River</i></p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>Decree, how was that accounted for in the DEIS? • The attached map shows the extent of Denver Water's service area, as decided in the Blue River Decree. If DW is providing service outside the line on the map how does that impact justification for the need for new diversions from the Fraser River Basin? How can DW continue to expand its water service area without violating the Blue River Decree? • Will DW accept Denver Basin water from the south metro area as exchange water? Does this comply with the Blue River Decree? Could Denver Basin water be used as an alternative to the Moffat Project?</i></p> <p>Response #1171-6: Issues related to the Blue River Decree are not relevant for the Purpose and Need of the Moffat Project. Contrary to the comment, according to Denver Water, the Blue River Decree provides that Denver Water may use Blue River water in its Metropolitan area. The Denver Metropolitan area is not defined by a map attached to the Blue River Decree. Rather, the parties to the stipulation, which was incorporated into the decree, defined the Denver Metropolitan area as the "area reasonably integrated with the development of Denver." The areas served by water from the Moffat Project would be provided to customers in the Denver Metropolitan area. As part of the proposed CRCA, Denver Water agreed to limit its use of its existing water rights including the water rights under the Moffat Project to a defined geographic area with certain exceptions contained in the agreement. The Colorado Cooperative Agreement is discussed in FEIS Section 4.3.1.</p> <p>Denver Basin groundwater was considered in the long list of alternatives (see Alternative ID# 801 in Table B-1 in Appendix B of the DEIS). This source of supply was screened out because it is non-</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>renewable and not sustainable. Additionally, the use of the Denver Basin as a component of other alternatives was identified and one of the “Practicable Alternatives” evaluate in the EIS (Alternative 10a) which uses aquifer storage in the Denver Basin in conjunction with an enlargement of Gross Reservoir.</p> <p>Comment #1171-7 (ID 4309): <i>Thank you for your consideration of my comments. I look forward to receiving answers and clarifications.</i></p> <p>Response #1171-7: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project’s environmental effects according to NEPA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1174 Rick Cutler</p>	<div style="text-align: center;">  </div> <p>Scott Franklin, Moffat EIS Project Manager U.S. Army Corps of Engineers, Omaha District 9307 South Wadsworth Blvd. Littleton, CO 80128</p> <p>Re: Raising Gross Dam's Height</p> <p>Dear Mr. Franklin,</p> <p>I am writing due to several concerns about items I do not feel have been adequately addressed in the DEIS for the Moffat Collection System Project.</p> <ol style="list-style-type: none"> 1) Why is the PROPOSED expansion of Gross Reservoir the only alternative addressed to this point? There are no other viable sources of storage in a worst case scenario? 2) Studying the water situation for the Denver metro area in the early 90's, I find there is STILL no concern for major water conservation of any sort. No xeriscaping. No push for HOA's to change rules to allow removal of wasteful grass yards and replaced with water conserving alternatives. No replacement of common ground/parks/HOA space sprinkler timers with timers associated with moisture detector timers to PREVENT watering said grounds during rain/post rain events. No rules/laws/fines preventing homeowners from over watering yards to the point of water running in the gutters. No water rates above a reasonable usage to deter excess water consumption. Common sense approaches to conserve water usage WITHOUT having to increase the Gross Reservoir storage capacity. 3) The number of admitted, large, dump truck trips per day in Coal Creek Canyon will INCREASE traffic danger/problems in the canyon. Trucks will be unable to remain in their lanes on sharper curves. They will create large numbers of traffic backups while transporting loads UP HILL. They will create possible traffic hazards while returning downhill by riding/losing brakes and driving in the opposite direction of uphill trucks, with one or the other crossing the center line. NO traffic in Coal Creek Canyon will be safe for a minimum of 3-4 years of this project. This does not include the added traffic count of workers competing for space with residents on the highway. 4) The added traffic will be an EXTREME HAZARD FOR BICYCLERS who use this canyon as a training/exercise route. In no way will the truck drivers be conditioned to watch for and avoid bicyclers. How many death's are you ready to be responsible for? 5) How will you guarantee the safety of log trucks in the canyon as they carry the logs out of the canyon for the same reasons stated above? 6) What kind of government agency is willing to dry up a river (Fraser) at the cost of wildlife and peoples' incomes/lifestyles? 7) How is Denver Water able to guarantee the Candelas project 3000 acre feet of water on a project that hasn't even been approved? Sounds like collusion and an under the table guarantee to me. 8) In relation to #7, how does Denver Water arrange contracts with some of the water rights in the Fraser River area without having approval for the project? 	<p>Comment #1174-6 (ID 4323): <i>I am writing due to several concerns about items I do not feel have been adequately addressed in the DEIS for the Moffat Collection System Project.</i></p> <p>Response #1174-6: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1174-18 (ID 4324): <i>Why is the PROPOSED expansion of Gross Reservoir the only alternative addressed to this point? There are no other viable sources of storage in a worst case scenario?</i></p> <p>Response #1174-18: The alternative screening process (Alternatives Screening Report, Corps 2007) did consider the other water sources (agricultural water transfer, conjunctive use and municipal reuse) in combination with storage components other than Gross Reservoir. These various water sources and 29 storage components from the "long list" passed the initial Screen 1A, as discussed in DEIS Section 2.1.2, Screen 1B. Two methods of acquiring agricultural water (ID 601) were reviewed: purchase or dry-year lease. It was assumed that the agricultural rights were available downstream of the Metro WWTP. Other locations, including the Arkansas River Basin, were considered in Screen 1A; however, they were eliminated by the criterion LG1, Must be within the State of Colorado and in the South Platte and mainstem Colorado river basins.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>9) Why are #7 and #8, if this is legal, not available, with details, for public dissemination?</p> <p>10)How will you ELIMINATE light, air and noise pollution from the proposed on-site concrete plant, especially since all travel efficiently in high altitude and open space?</p> <p>11)If you burn the logs/slash, how do you propose to ELIMINATE the smoke pollution that will affect all in the local area?</p> <p>12)How is Denver Water able to make municipality agreements, out of the public's ability to object to such agreements, before any approval of the PROPOSED expansion?</p> <p>13)What type of management dictates and penalties will be in place for failure to follow and approved plan(s) for this PROPOSED expansion?</p> <p>14)Was there a "secret" agreement between Denver Water and the railroad for the railroad to oppose any use of their side tracks for transport and storage of ALL required materials? If not, why has this not been made public?</p> <p>15)What does the re-issue of the FERC license for Gross Reservoir have to do with the pass/fail approval of the PROPOSED expansion?</p> <p>16)Why has this process not been enforced by following NEPA regulations requiring strong public participation and input for this PROPOSED expansion?</p> <p>17)With the lack of any concerted effort on the part of Denver Water to follow federal agency guidelines for determining ALL, VIABLE ALTERNATIVES, with active participation from ALL STAKEHOLDERS to this PROPOSED expansion, how has this process been allowed to advance to this late stage?</p> <p>At this point, with all of the listed and unlisted concerns I have expressed, I would expect you to backtrack and re-start the permit process, looking a ALL VIABLE ALTERNATIVES, including ALL STAKEHOLDERS in the process and CRITICALLY DISSEMINATING the data presented, coming to a conclusion NOT based on DENVER WATER'S BIASED VIEWS.</p> <p>Very Sincerely,</p> <p><i>Rick Cutler</i></p> <p>Rick Cutler</p> 	<p>The justification for this criterion, as stated in Table 2-1, is still valid: "Exploring options outside the South Platte and mainstem Colorado river basin would necessitate acquiring water rights from new filings, purchasing and transferring existing water rights, and developing extensive new infrastructure to import the water. Obtaining water from the Gunnison, Yampa, White, North Platte, Rio Grande, San Juan/Dolores, or Arkansas river basins would be extremely difficult, if not impossible, in a timeframe consistent with the Purpose and Need." This is also a reasonable criterion to use because it did not eliminate a significant number of the water source options being considered in the screening. Numerous alternatives were configured in Screen 1b that do not include expansion of Gross Reservoir. Leyden Gulch Reservoir, plus several other storage components such as Ralston Reservoir, Spring Creek Reservoir, and Box Elder shallow aquifer were used to configure Project alternatives. Refer to Alternatives 6a and 6b, 7a and 7b, 8b, 9a and 9b, 10b – 10e, 11a, 12a, and 13b in Table 2-4. Each of these alternatives was legitimately screened out in Screen 1c or Screen 2 for various reasons. The multi-step process of screening a variety of water sources other than Moffat Tunnel water and storage components other than enlarging Gross Reservoir is justified and well-documented.</p> <p>Comment #1174-8 (ID 4325): <i>Studying the water situation for the Denver metro area in the early go's, I find there is STILL no concern for major water conservation of any sort. No xeriscaping. No push for HOA's to change rules to allow removal of wasteful grass yards and replaced with water conserving alternatives. No replacement of common ground/parks/HOA space sprinkler timers with timers associated with moisture detector timers to PREVENT watering said grounds during rain/post rain events. No rules/laws/fines preventing</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>homeowners from over watering yards to the point of water running in the gutters. No water rates above a reasonable usage to deter excess water consumption. Common sense approaches to conserve water usage WITHOUT having to increase the Gross Reservoir storage capacity.</i></p> <p>Response #1174-8: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>404 regulations.</p> <p>Comment #1174-19 (ID 4326): <i>The number of admitted, large, dump truck trips per day in Coal Creek Canyon will INCREASE traffic danger/problems in the canyon. Trucks will be unable to remain in their lanes on sharper curves. They will create large numbers of traffic backups while transporting loads UP HILL. They will create possible traffic hazards while returning downhill by riding/losing brakes and driving in the opposite direction of uphill trucks, with one or the other crossing the center line. NO traffic in Coal Creek Canyon will be safe for a minimum of 3-4 years of this project. This does not include the added traffic count of workers competing for space with residents on the highway.</i></p> <p>Response #1174-19: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77S, SHs 72, 93, and 128, U.S. Highway 287 (US 287), Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During peak construction period, about 35 trucks could deliver material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1174-9 (ID 4327): <i>The added traffic will be an EXTREME HAZARD FOR BICYCLERS who use this canyon as a training exercise route. In no way will the truck drivers be conditioned to watch for and avoid bicyclers. How many death's are you ready to be responsible for?</i></p> <p>Response #1174-9: Denver Water met with CDOT regarding establishment of a bike path. However, Denver Water's consultant and CDOT evaluated this option and determined that establishing a bike path would not be feasible due to safety concerns, and space and cost constraints.</p> <p>The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Comment #1174-7 (ID 4328): <i>How will you guarantee the safety of log trucks in the canyon as they carry the logs out of the canyon for the same reasons stated above?</i></p> <p>Response #1174-7: The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Comment #1174-2 (ID 4329): <i>What kind of government agency is willing to dry up a river (Fraser) at the cost of wildlife and peoples'</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>incomes/lifestyles?</i></p> <p>Response #1174-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1174-10 (ID 4330): <i>How is Denver Water able to guarantee the Candelas project 3000 acre feet of water on a project that hasn't even been approved? Sounds like collusion and an under the table guarantee to me.</i></p> <p>Response #1174-10: The Corps understands that Denver Water is not making a guarantee to supply water to the proposed Candelas project. An IGA does exist between Denver Water and Arvada that allows Arvada to purchase up to 3,000 AF of water in the event Denver Water increases supply on the north end of its water collection system. However, the IGA does not specify where Arvada would use the water and Denver Water is not aware of any agreement that the development of the Candelas project is dependent upon the success of the proposed Moffat Project (Gross Reservoir enlargement). As evident in the recent Sterling Ranch development, there are several ways a development can obtain water for residential use.</p> <p>Comment #1174-11 (ID 4331): <i>In relation to #7, how does Denver Water arrange contracts with some of the water rights in the Fraser River area without having approval for the project?</i></p> <p>Response #1174-11: Denver Water has not entered into any contracts that guarantee a water supply from the proposed Moffat Project. Additionally, Denver Water does not anticipate expanding its service area or raw water</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>contracts (with the exception of the IGA mentioned in the response to Comment ID 4330).</p> <p>Comment #1174-12 (ID 4332): <i>Why are #7 and #8, if this is legal, not available, with details, for public dissemination?</i></p> <p>Response #1174-12: Denver Water is not guaranteeing 3,000 AF of water for the Candelas development. If the proposed Project is constructed, Denver Water would make available 3,000 AF of water to the City of Arvada per a 1999 IGA between Denver Water and Arvada. The selling of water to Candelas by Arvada is a decision the City of Arvada would make at its own discretion.</p> <p>The 1999 IGA with Arvada is based on the construction of a water supply project on the north end of Denver Water's system. If the amount of water delivered to the Moffat Treatment Plant (north end) is not increased, then Denver Water has no obligation to provide additional water to Arvada.</p> <p>Comment #1174-13 (ID 4314): <i>How will you ELIMINATE light, air and noise pollution from the proposed on-site concrete plant, especially since all travel efficiently in high altitude and open space?</i></p> <p>Response #1174-13: The proposed construction activities associated with the enlargement of Gross Reservoir are not predicted to exceed relevant standards or guidelines. On-site construction noise may periodically exceed the EPA noise threshold of 70 dBA for public exposure, but the public would not be exposed to these levels on a continuous basis. The noise levels described in the EIS are predicted at distances of less than 50 feet from the source and would be temporary and remote. Sound travels</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>omni-directionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 dB.</p> <p>All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1.</p> <p>As discussed in FEIS Section 5.13.7, a land development construction permit would be required from the CDPHE APCD prior to beginning the land clearing activities. The operating terms and conditions of a land development permit include a Fugitive Dust Control Plan to control emissions of particulate matter (dust).</p> <p>The Fugitive Dust Control Plan would define specific control measures, such as those listed in FEIS Table 5.13 9, that must be complied with by Denver Water and its contractors throughout the Project to minimize the release of fugitive dust. While a Corps' Section 404 Permit would require that construction activities conform to Colorado State Air Quality standards, the Corps would not require a compensation plan as a permit condition. However, it is the Corps understanding that Denver Water is voluntarily meeting directly with local residents affected by the construction of the proposed Project in an attempt to address residents' concerns.</p> <p>In general, construction activities would occur during the day and night lighting would not be required other than for safety and security purposes. However, there may be infrequent periods during the construction phase of the Project when double or</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>even triple work shifts would be required. Increased night lighting would be required during these infrequent periods and it would be visible from surrounding nearby residences and wildlife during this construction activity. Work hours for all construction would be limited in conformance with applicable local ordinances. Following completion of construction, lighting on the raised dam would be the same as currently exists. Therefore, no long term impacts from lighting are expected.</p> <p>Comment #1174-3 (ID 4315): <i>If you burn the logs/slash, how do you propose to ELIMINATE the smoke pollution that will affect all in the local area?</i></p> <p>Response #1174-3: Air quality impacts from tree removal and residue disposal are discussed in FEIS Section 5.13.1.1. Denver Water would work with the USFS to determine the best disposal option, which may involve the use of an air curtain incinerator (ACI) onsite or grinding the trees and removing the chips.</p> <p>ACIs use a blower to create a high velocity air flow to a combustor box. This provides higher temperatures and longer residence time for combustion than open burning, resulting in more complete combustion and fewer particulate emissions (smoke). A recent study evaluating the effectiveness of ACIs showed the ACI to give a 23-fold reduction in particulate matter less than 2.5 microns in diameter (PM_{2.5}) emissions over pile burns, and a 33-fold reduction over understory burns according to "Reducing PM_{2.5} Emissions through Technology" (USFS, Rocky Mountain Research Station, Fires Sciences Laboratory, Missoula, MT).</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1174-14 (ID 4316): <i>How is Denver Water able to make municipality agreements, out of the public's ability to object to such agreements, before any approval of the PROPOSED expansion?</i></p> <p>Response #1174-14: Denver Water is a municipal corporation and a political subdivision of the State, under the control of a Board appointed by the Mayor of Denver. Article XX of the Colorado Constitution grants the City and County of Denver home rule power to legislate on local and municipal matters and to operate water works "within or without its territorial limits." The Denver Charter grants the Board "all the powers of the City and County of Denver including those granted by the Constitution and by the law of the State of Colorado and by the Charter[.]" Specifically, the Charter gives the Board "complete charge and control of a water works system and plant for supplying the City and County of Denver and its inhabitants with water for all uses and purposes." The public is welcome to attend Board meetings.</p> <p>Comment #1174-4 (ID 4317): <i>What type of management dictates and penalties will be in place for failure to follow and approved plan(s) for this PROPOSED expansion?</i></p> <p>Response #1174-4: Corps' Section 404 Permits are enforceable under 33 CFR Part 326 - Regulatory Enforcement.</p> <p>Comment #1174-15 (ID 4318): <i>Was there a "secret" agreement between Denver Water and the railroad for the railroad to oppose any use of their side tracks for transport and storage of ALL required materials? If not, why has this not been made public?</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1174-15: Denver Water hired an independent consultant to evaluate using the railroad to transport material to the site. The consultant found that using the railroad would not be feasible for the Project because of the technical, logistical, topographical and cost problems associated with unloading material at the existing railroad siding. Based on discussions with UPRR, the consultant determined that new infrastructure would need to be constructed to accommodate the rail cars and avoid conflicts with the coal train traffic on the mainline; handle unloading of the various materials into trucks, which would be needed to transport the material to the dam site; and avoid conflicts with traffic on Gross Dam Road. A new siding would be very difficult and expensive (approximately \$20 million) to construct due to the constraints of the existing topography and would require a significant amount of material to be hauled to the siding by truck on SH 72.</p> <p>Comment #1174-1 (ID 4319): <i>What does the reissue of the FERC license for Gross Reservoir have to do with the pass/fail approval of the PROPOSED expansion?</i></p> <p>Response #1174-1: Denver Water must amend its existing FERC license for Gross Reservoir in order to enlarge the reservoir. If Denver Water does not obtain a Section 404 Permit from the Corps, Gross Reservoir would not be enlarged and therefore an amendment to the existing FERC license would not be needed.</p> <p>Comment #1174-5 (ID 4320): <i>Why has this process not been enforced by following NEPA regulations requiring strong public participation and input for this PROPOSED expansion?</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1174-5: The Corps has complied with public participation requirements throughout the NEPA process. The Corps maintains a Project mailing list comprised of the general public (i.e., citizens, private companies, NGOs, etc.) that attended the scoping meetings as well as current contacts at the appropriate local, State, and Federal agencies. Informational postcards describing the public hearings, including the meeting in Boulder, were distributed to members of the Project mailing list on October 28, 2009. Information on the public hearings was also distributed as display ads in the following local newspapers:</p> <ul style="list-style-type: none"> • Denver Post, 10/30/09 and 11/30/09 • Sky-Hi Daily News, 10/30/09 and 11/30/09 • Mountain Messenger (Coal Creek Canyon), November Issue • Highlander Monthly, November Issue • Boulder Daily Camera, 10/30/09 and 11/30/09 <p>Public hearing information was also displayed on the Corps' Project website at https://www.nwo.usace.army.mil/html/od-tl/eis/moffat-eis.html and Denver Water's website at http://www.denverwater.org/SupplyPlanning/Planning/FutureWaterSupply/WaterSupplyProjects/Moffat/.</p> <p>Comment #1174-16 (ID 4321): <i>With the lack of any concerted effort on the part of Denver Water to follow federal agency guidelines for determining ALL, VIABLE ALTERNATIVES, with active participation from ALL STAKEHOLDERS to this PROPOSED expansion, how has this process been allowed to advance to this late stage?</i></p>



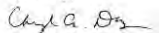
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1174-16: The Corps is the lead Federal agency for the NEPA process and directs the alternatives development and screening process as well as ensures compliance with public interest review requirements.</p> <p>The Corps conducted a detailed alternative screening process for the Moffat Project that considered over 300 water sources and infrastructure structural components (Alternatives Screening Report, Corps 2007) including agricultural water transfer, municipal reuse, and various storage locations.</p> <p>The major tools used to interact with the public are the public notice and public hearing. The public notice is the primary method of advising all interested parties of a proposed activity for which a permit is sought and of soliciting comments and information necessary to evaluate the probable beneficial and detrimental impacts on the public interest. Public notices are used to announce hearings. Public notices on proposed projects always contain a statement that anyone commenting may request a public hearing. Public hearings are held if comments raise substantial issues which cannot be resolved informally and the Corps decision maker determines that information from such a hearing is needed to make a decision (see 33 CFR 327). Four public hearings were held for the Moffat Project, including an open house held at those events.</p> <p>Comment #1174-17 (ID 4322): <i>At this point, with all of the listed and unlisted concerns I have expressed, I would expect you to backtrack and re-start the permit process, looking ALL VIABLE ALTERNATIVES, including ALL STAKEHOLDERS in the process and CRITICALLY DISSEMINATING the data presented, coming to a</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>conclusion NOT based on DENVER WATER'S BIASED VIEWS.</i></p> <p>Response #1174-17: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1175 Cheryl A. Day</p>	<div style="text-align: center;">  CHERYL DAY </div> <div style="text-align: center;">  </div> <p>March 15, 2010</p> <p>Mr. Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Scott:</p> <p>Thank you in advance for considering my concern. As a resident of the Fraser Valley for 30 years, I am worried that we are not considering the future impacts of our needs. Denver's City Fathers had the foresight years ago to acquire water rights to provide for public need. In those days, environmental impacts were never considered. We thought we could just take water from where it was abundant and divert it to where it was needed. We now know that it isn't easy to mess with Mother Nature. It has become obvious that diversions from the upper Fraser River Valley have a significant impact on everything downstream - water temperature, water quality, and wildlife habitat - from Winter Park to Kremmling and beyond.</p> <p>Denver's current leadership needs to have the foresight to implement stringent controls on the use of that resource. There is not an endless supply. We cannot continue to degrade Grand County's waters - waters belonging to the people of the U.S. - without careful planning and monitoring.</p> <p>To protect future generations, the EIS must provide for adaptive management that requires careful monitoring and a proactive response to maintain the health of the river. This would include funding and a process for independent monitoring of water quality and impacts on aquatic life as well as funding for mitigation in response to needs identified by monitoring.</p> <p>The Corps' main responsibility is neither to Grand County nor to Denver Water, but to the environment and to future generations. Please protect the life and health of the Fraser and Colorado Rivers.</p> <p>Sincerely,  Cheryl A. Day Concerned Citizen of the Fraser Valley</p>	<p>Comment #1175-1 (ID 4086): <i>Thank you in advance for considering my concern. As a resident of the Fraser Valley for 30 years, I am worried that we are not considering the future impacts of our needs. Denver's City Fathers had the foresight years ago to acquire water rights to provide for public need. In those days, environmental impacts were never considered. We thought we could just take water from where it was abundant and divert it to where it was needed. We now know that it isn't easy to mess with Mother Nature. It has become obvious that diversions from the upper Fraser River Valley have a significant impact on everything downstream - water temperature, water quality, and wildlife habitat - from Winter Park to Kremmling and beyond.</i></p> <p>Response #1175-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1175-2 (ID 4085): <i>Denver's current leadership needs to have the foresight to implement stringent controls on the use of that resource. There is not an endless supply. We cannot continue to degrade Grand County's waters - waters belonging to the people of the U.S. - without careful planning and monitoring. To protect future generations, the EIS must provide for adaptive management that requires careful monitoring and a proactive response to maintain the health of the river. This would include funding and a process for independent monitoring of water quality and impacts on aquatic life as well as funding for mitigation in response to needs identified by monitoring.</i></p> <p>Response #1175-2: Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>404 Permit is issued for the Moffat Project, mitigation will be evaluated and required. The cost of the Project, including mitigation cost, is incorporated into Denver Water's water rates.</p> <p>Comment #1175-3 (ID 4084): <i>The Corps' main responsibility is neither to Grand County nor to Denver Water, but to the environment and to future generations. Please protect the life and health of the Fraser and Colorado Rivers.</i></p> <p>Response #1175-3: The Corps notes the comment.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1177 Bambi Hansen</p>	<div style="text-align: center;">  </div> <p>Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Mr. Franklin</p> <p>In my reviewing of the EIS I found it lacking solutions to some major environmental concerns. Clearly the environment will be compromised what compromises are expected of Denver Water? As a citizen of the gross reservoir community I am concerned with the traffic and safety issues. We are being asked to seriously compromise our environmental health and Safety for this project. Based on the metrics reported in the EIS this Project is not necessary. The few conservation measures reported, are outdated and not based on figures to reflect the arid environment of our state. Very little mention of forest health was made in the report. The entire project, all the way from the river to the dam itself is forest, and the fact that land filling any of the forest waste is inappropriate.</p> <p>Any project of this size needs to address the TOTAL environmental / carbon footprint. From the beginning and through the construction to the end which can only result in more developmental sprawl, stripping the front range of the few rural enclaves that remain. This too adds to the carbon foot print, having to haul live stock and produce further to the suburbs.</p> <p>The report includes a very impressive inventory of wildlife that will be affected but does not adequately address efforts to be taken to minimize the affects.</p> <p>The report does not adequately s address the fact that the Fraser river and its tributaries have already been compromised by more the half.</p> <p>The report does not adequately address the impacts this project will have on those who hike, bike, boat, fish, and enjoy the area as it is.</p> <p>The report does not adequately address how all of the construction waste will be handled and who monitors the removal of such waste.</p> <p>Bambi Hansen</p> <p><i>Bambi Hansen</i></p>	<p>Comment #1177-1 (ID 4089): <i>In my reviewing of the EIS I found it lacking solutions to some major environmental concerns. Clearly the environment will be compromised what compromises are expected of Denver Water? As a citizen of the gross reservoir community I am concerned with the traffic and safety issues. We are being asked to seriously compromise our environmental health and Safety for this project. Based on the metrics reported in the EIS this Project is not necessary. The few conservation measures reported, are outdated and not based on figures to reflect the arid environment of our state. Very little mention of forest health was made in the report. The entire project, all the way from the river to the dam itself is forest, and the fact that land filling any of the forest waste is inappropriate.</i></p> <p>Response #1177-1: The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in Table 1-2 of the DEIS and FEIS.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Denver Water does not plan to use a traditional slash pile-and-burn method because of air quality concerns and regulations. Also, Denver Water intends to landfill only a portion of the residue. Trees would be disposed by the following options:</p> <ul style="list-style-type: none"> • Selling merchantable timber for small wood products; • Allowing people to gather firewood from central locations; • Burning with an air curtain destructor; • Grinding whole trees and hauling the debris to a landfill; and • Loading timber and hauling to a landfill. <p>Comment #1177-5 (ID 4090): <i>Any project of this size needs to address the TOTAL environmental / carbon footprint. From the beginning and through the construction to the end which can only result in more developmental sprawl, stripping the front range of the few rural enclaves that remain. This too adds to the carbon foot print, having to haul live stock and produce further to the suburbs.</i></p> <p>Response #1177-5: GHG emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13. The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I.</p> <p>Comment #1177-6 (ID 4091): <i>The report includes a very impressive inventory of wildlife that will be affected but does not adequately address efforts to be taken to minimize the affects.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1177-6: In general, wildlife may be temporarily and indirectly impacted by construction noise. Wildlife responses to noise would depend on several factors such as species, the type of activity, topography, and individual sensitivity. An analysis of displacement effects to elk during construction from blasting and tree cutting has been added to the wildlife analysis in FEIS Section 5.9.1.1. Project impacts to wildlife at Gross Reservoir are characterized as minor to moderate for the various species and groups.</p> <p>The Corps consulted with USFWS and CPW to ensure compliance with wildlife protection regulations (e.g., Endangered Species Act [ESA], Fish and Wildlife Coordination Act, Migratory Bird Act) and by identifying appropriate mitigation measures to minimize and avoid impacts to wildlife. Pursuant to C.R.S. 37-60-122.2, Denver Water submitted a Fish and Wildlife Mitigation Plan to the Colorado Wildlife Commission on June 9, 2011 and the CWCB on July 13, 2011, and both agencies adopted the proposed Fish and Wildlife Mitigation Plan. Denver Water would also work with the USFS to ensure that forest clearing and revegetation would be consistent with National Forest standards.</p> <p>Comment #1177-2 (ID 4092): <i>The report does not adequately s address the fact that the Fraser river and its tributaries have already been compromised by more the half.</i></p> <p>Response #1177-2: DEIS Table 3.1-10 summarizes the effects of historical Moffat Collection System diversions on native flow at the Fraser River at Winter Park gage. On average, Denver Water diverted approximately 50% of the average annual native flow at the Fraser River at Winter Park gage for the 30-year period from 1975 through 2004. The percentage of native</p>


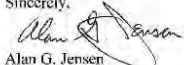
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>flow diverted by Denver Water depends on the location in the basin. Denver Water would divert over 90% of the native flow with the Moffat Project on-line from some small tributaries that do not have bypass flow requirements. Denver Water would divert about 76% of the native flow at the Winter Park gage with the Moffat Project on-line. At the Granby gage located near the mouth of the Fraser River, Denver Water's average annual Moffat Collection System diversions represent approximately 41% of the native flow. Tables showing the percentage of native flow diverted by Denver Water under Current Conditions, Full Use of the Existing System and the proposed Moffat Project flow were added to FEIS Appendix H.</p> <p>Flow related changes that have occurred in the Fraser River Basin since 1935 are due in part to Denver Water's existing Moffat Collection System diversions, however, these impacts are attributable to past and present operations of that system, not the proposed Moffat Project. Under the proposed Moffat Project, additional diversions through the Moffat Tunnel would occur primarily during runoff months in May, June and July (see Table H-3.1 in DEIS Appendix H). The environmental effects of additional diversions attributable to the Moffat Project were evaluated and determined to be minimal to moderate depending on the resource.</p> <p>Comment #1177-3 (ID 4093): <i>The report does not adequately address the impacts this project will have on those who hike, bike, boat, fish, and enjoy the area as it is.</i></p> <p>Response #1177-3: The analysis addresses the potential impacts on recreation as a result of the Proposed Action, focusing on activities that are water dependent. Activities such as hiking and mountain biking, which</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>are not water dependent, are not expected to be directly affected. Impacts to the scenery of the area, which may be a component of the recreation experience, were addressed in DEIS Section 4.15.</p> <p>Comment #1177-4 (ID 4094): <i>The report does not adequately address how all of the construction waste will be handled and who monitors the removal of such waste.</i></p> <p>Response #1177-4: Denver Water would dispose of construction waste in accordance with applicable county and State requirements.</p>



Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1179 Alan G. Jensen</p>	<div style="text-align: center;">  <p>ALAN JENSEN</p> </div> <p style="text-align: center;">March 15, 2010</p> <p>Mr. Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Scott:</p> <p>Thank you in advance for considering my concern. I have been a resident of the Fraser Valley for the past 34 years. I walk my dog on the Fraser River trail on a daily basis. From year to year, I notice changes to the Fraser River. In the past, during the spring runoff, I could hear the rocks rolling under the current. In the past three or four years, however, it has been hard to notice much of a rise in the Fraser River. The summer months reveal green slime and flowing algae hanging onto rocks. In the fall, freezing temperatures produce green tinted ice. It is clear that sufficient water flows are not keeping the Fraser River healthy. To take any more water out of the Fraser River should not be considered. What I believe should be considered is how to conserve water use on the Front Range. Denver and other Front Range cities and developments should outlaw, or at least restrict, uses of water-hungry grasses. They should give tax credits and other incentives to Xeriscape.</p> <p>Please realize that the life or death of the Fraser River depends on whether or not the Front Range residents learn to conserve water and not just take it from where it belongs.</p> <p>Sincerely,  Alan G. Jensen Concerned Citizen</p> <p>cc: Colorado Division of Wildlife Environmental Protection Agency U.S. Senator Mark Udall Secretary Ken Salazar U.S. Representative Jared Polis U.S. Senator Michael Bennet Colorado Governor Bill Ritter</p>	<p>Comment #1179-4 (ID 4310): <i>Thank you in advance for considering my concern. I have been a resident of the Fraser Valley for the past 34 years. I walk my dog on the Fraser River Trail on a daily basis.</i></p> <p>Response #1179-4: The Corps notes the comment.</p> <p>Comment #1179-3 (ID 4311): <i>From year to year, I notice changes to the Fraser River. In the past, during the spring runoff, I could hear the rocks rolling under the current. In the past three or four years, however, it has been hard to notice much of a rise in the Fraser River. The summer months reveal green slime and flowing algae hanging onto rocks. In the fall, freezing temperatures produce green tinted ice. It is clear that sufficient water flows are not keeping the Fraser River healthy. To take any more water out of the Fraser River should not be considered.</i></p> <p>Response #1179-3: A more detailed evaluation of temperature analysis on the Fraser River and the Colorado River (between the Fraser River and the Blue River) was performed for the FEIS (see Sections 4.6.2 and 5.2).</p> <p>Comment #1179-2 (ID 4312): <i>What I believe should be considered is how to conserve water use on the Front Range. Denver and other Front Range cities and developments should outlaw, or at least restrict, uses of water-hungry grasses. They should give tax credits and other incentives to Xeriscape.</i></p>

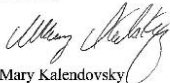
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1179-2: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1179-1 (ID 4313): <i>Please realize that the life or death of the Fraser River depends on whether or not the Front Range residents learn to conserve water and not just take it from where it belongs.</i></p> <p>Response #1179-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1180 Mary Kalendovsky</p>	<div style="text-align: center;">  <p>February 25, 2010 Mary Kalendovsky </p> </div> <p>Scott Franklin, Moffat EIS Project Manager Corp Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Attn: Scott Franklin</p> <p>I wanted to voice my strong objection to the Denver Water Board's attempt to divert even more of Grand County's water to the Front Range. Allowing this to happen sends a clear message that officials are willing to sacrifice the health of communities in the mountains to support the wasteful, indulgence of the Front Range. The act of degrading our river systems will have serious consequences that are not being given adequate attention. It is more important now than ever, to preserve our state's ecosystems, as their value steadily increases along with the threat to their existence. Not only is Grand County's river system valuable from an ecological standpoint, it is also a vital part of the county's tourist economy. Please keep in mind, by that same token, tourism is also a critical to our state's economy. How much are we really helping our state by favoring only the needs of a few Front Range communities?</p> <p>I feel that it is impossible for the EIS to accurately predict the outcome of dewatering such a complicated aquatic system, both in terms of the hydrologic impacts and the ecological impacts. As just one example, simply changing the flow regime of a river (even independent of the resulting temperature changes) will change the dominant algae species. This in turn changes the species of benthic invertebrates that feed on the algae, and consequently alters both the aquatic and terrestrial food chains at their most basic level. Changing the water levels further will affect the hydrology of dependent springs, wetlands and other connected systems in unpredictable ways. Sediment transport will</p>	<p>Comment #1180-3 (ID 4377): <i>I wanted to voice my strong objection to the Denver Water Board's attempt to divert even more of Grand County's water to the Front Range. Allowing this to happen sends a clear message that officials are willing to sacrifice the health of communities in the mountains to support the wasteful, indulgence of the Front Range. The act of degrading our river systems will have serious consequences that are not being given adequate attention. It is more important now than ever, to ,preserve our state's ecosystems, as their value steadily increases along with the threat to their existence. Not only is Grand County's river, system valuable from an ecological standpoint, it is also a vital part of the county's tourist economy. Please keep in mind, by that same token, tourism is also a critical to our state's economy. How much are we really helping our state by favoring only the needs of a few Front Range communities?</i></p> <p>Response #1180-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1180-1 (ID 4378): <i>I feel that it is impossible for the EIS to accurately predict the outcome of dewatering such a complicated aquatic system, both in terms of the hydrologic impacts and the ecological impacts. As just one example, simply changing the flow regime of a river (even independent of the resulting temperature changes) will change the dominant algae species. This in turn changes the species of benthic invertebrates that feed on the algae, and consequently alters both the aquatic and terrestrial food chains at their most basic level.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>also be unnaturally altered. Less water will mean that pollutants will be present in much higher concentrations, the effects of which cannot be known for certain. The latter effect may be further compounded by the inability of the river to flush contaminants from its system with decreased flow rates.</p> <p>It is reckless to assume that the water levels of today will be seen in ten, twenty or thirty years. It is very possible that climate change or drought could alter the water available in the future, and could make the proposed dewatering even more disastrous.</p> <p>Ultimately, there is only a finite amount of water available. Denver will inevitably reach a point where it cannot squeeze any more water out of its parched mountain river systems and will have to get serious about water conservation and containing unbridled growth. Since conservation efforts will have to be enacted at some point, no matter what, they should be visited immediately and spare Grand County the environmental and economic impacts.</p> <p>Sincerely</p>  <p>Mary Kalendovsky</p>	<p><i>Changing the water levels further will affect the hydrology of dependent springs, wetlands and other connected systems in unpredictable ways. Sediment transport will also be unnaturally altered. Less water will mean that pollutants will be present in much higher concentrations, the effects of which cannot be known for certain. The latter effect may be further compounded by the inability of the river to flush contaminants from its system with decreased flow rates.</i></p> <p>Response #1180-1: The assumption that it is impossible to make a reasonable prediction of impacts is not correct. The DEIS and FEIS make reasonable and adequate predictions of impacts as required under NEPA and Section 404, and components of the aquatic environment listed above have all been evaluated in the DEIS and FEIS..</p> <p>Concerning the changes in dominant algae species and the resulting food chains, the state of the art in aquatic biology can accurately predict if some individual species of algae and benthic invertebrates would be affected by the Project. For example, in the case of substantial reductions in flow, species that prefer fast currents may be reduced. However, predictions for all species are beyond the state of the art and the scope of the EIS. DEIS and FEIS Sections 3.11, 4.6.11, and 5.11 focus on the aquatic communities of algae, benthic invertebrates, and fish, and include reasonable predictions of changes in the aquatic community.</p> <p>Comment #1180-2 (ID 4379): <i>It is reckless to assume that the water levels of today will be seen in ten, twenty or thirty years. It is very possible that climate change or drought could alter the water available in the future, and could make the proposed dewatering even more disastrous.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1180-2: The DEIS addressed climate change in Section 5.4 and described the impacts of expected yield of the Moffat Collection System related to earlier and more concentrated spring runoff:</p> <p>"Many scientific studies have predicted an increase in temperatures, resulting in changes in the composition of winter precipitation and the timing of spring snowmelt. In other words, as temperatures rise the West could receive more winter precipitation in the form of rain versus snow and the snow that does accumulate would melt earlier in the spring than in past years. In Colorado, the onset of stream flows from melting snow has shifted earlier by two weeks between 1978 and 2004 and the timing of runoff is projected to shift earlier in the spring (Western Water Assessment 2008). If this were to occur, it is likely that the yield of the Moffat Collection System would decrease due to existing capacity constraints. The Moffat Collection System canals and tunnels are only capable of transporting a certain amount of water before reaching hydraulic limitations. Additionally, South Boulder Creek is only capable of transporting approximately 1,200 cfs at Pinecliffe before flooding concerns arise. If runoff were to occur in a condensed timeframe, it is likely that hydrological limitations in the Moffat Collection System could decrease Denver Water's yield. Furthermore, a condensed timeframe for runoff would likely mean a reduction in the number of days Denver Water's water rights is in priority to divert water. This could result in Denver Water building additional replacement sources to ensure an adequate supply of water for its customers."</p> <p>Although there is valid concern in the scientific community that global climate change may affect future water supplies in Colorado, there is little quantitative or even qualitative data with which to</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>accurately predict or portray these changes, and consequently with which to integrate reasonably predictable cumulative effects of the proposed actions. The 2008 Western Water Assessment report prepared for the CWCB, Climate Change in Colorado, indicates that, "In all parts of Colorado, no consistent long-term trends in annual precipitation have been detected. Variability is high, which makes detection of trends difficult. Climate model projections do not agree whether annual mean precipitation would increase or decrease in Colorado by 2050. The multi-model average projection shows little change in annual mean precipitation." The 2009 USGS Circular 1331, Climate Change and Water Resources Management: A Federal Perspective, indicates that climate change has the potential to affect many sectors in which water resource managers play an active role, including water availability. The study concedes two pertinent points: (1) the best available scientific evidence based on observations from long-term monitoring networks indicates that climate change is occurring, although the effects differ regionally; and (2) climate change could affect all sectors of water resources management, since it may require changed design and operational assumptions about resource supplies, system demands or performance requirements, and operational constraints. These studies reflect general trends that there is concern regarding the effect of climate change on the proposed actions, however the absence of quantified climate-induced decreases in flows related to the proposed actions makes it impossible to evaluate the changes with more than a speculative quality. Climate change is an evolving science, as such the Corps updated the FEIS (Section 4.4) with more recent technical documentation, including the joint Corps-Reclamation planning document titled Addressing Climate Change in Long-Term Water Resources</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Planning and Management: User Needs for Improving Tools and Information (Brekke 2011).</p> <p>The concept of systematic interdisciplinary approach to cumulative effects is central to NEPA analysis, but is only defined in very general terms. Accordingly, the Act relies on the Federal agencies to establish their own methods and procedures within the framework of the regulatory requirements. Therefore, the Corps as the lead Federal Agency of the Moffat Project EIS believes the analysis is adequate.</p> <p>Comment #1180-4 (ID 4380): <i>Ultimately, there is only a finite amount of water available. Denver will inevitably reach a point where it cannot squeeze any more water out of its parched mountain river systems and will have to get serious about water conservation and containing unbridled growth. Since conservation efforts will have to be enacted at some point, no matter what, they should be visited immediately and spare Grand County the environmental and economic impacts.</i></p> <p>Response #1180-4: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It</p>



Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1182 Jake and Carla Owsley</p>	<p>March 12, 2010</p> <p>U.S. Army Corps of Engineers Attn: Scott Franklin 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>moffatproject@denverwater.org</p> <p>Dear Mr. Franklin,</p> <p>We are residents of the neighborhood called Lakeshore Park on the north side of Gross Dam. We are extremely concerned with the proposed project and request that the Denver Water reconsider its plan and NOT augment the size of Gross Dam as part of the Moffat Collection System Project for the following reasons:</p> <p>The surrounding neighborhoods, for which ours is one in addition to that of Coal Creek Canyon, expect to be severely impacted by the traffic congestion of haul trucks, lumber trucks and worker vehicles traveling up and down the canyon, over four years. This will create ambient pollution, not only from emission exhaust but also from fine, pulverized dirt since the road from Coal Creek Canyon to the dam is an unimproved, dirt road. Also we expect tremendous noise pollution from the sound of the trucks, diesel engines, rock crushing, and cement plant and earth-moving equipment, day and night for four years. We chose to live here to enjoy the sounds of nature and quiet. And visitors also come to enjoy that in the adjacent Boulder County Open Spaces and the National Forest areas.</p> <p>There will be major traffic safety issues and these along with the damage that will be caused to the roads used have not yet been addressed in the rough draft EIS, neither has there been a traffic study. vThe angle of switchback turns apparently do not allow for a safe turn of the large trucks without passing into the oncoming traffic lane in several locations. The roads include Hwy 72, Gross Dam Road and Flagstaff Rd. There is nothing that addresses either the road-safety issues or the damage that will happen to the roads as a result of the project. The mitigating costs should be added to the cost of the project should the project go forward.</p> <p>The loss of 20,000 to 30,000 trees is a major permanent impact. The carbon sink is gone.</p> <p>Although it is acknowledged that the Denver Water Board holds the water rights from the Fraser River system, this project will increase the Fraser River diversion to 80%. In 2005, the American Rivers Association already ranked the Fraser as the 3rd Most Endangered River in the US. The Moffat project will decrease flows in the Fraser, Colorado, Williams Fork and Blue Rivers. Healthy upslope rivers are essential to the well being of Boulder and Colorado (and beyond) residents whether it is for personal or recreational use.</p> <p>There is no doubt that the wildlife living here will be impacted by the project. I have personally seen these animals in the vicinity of Gross Dam: the annual elk herds, bear,</p>	<p>Comment #1182-6 (ID 4397): <i>We are residents of the neighborhood called Lakeshore Park on the north side of Gross Dam. We are extremely concerned with the proposed project and request that the Denver Water reconsider its plan and NOT augment the size of Gross Dam as part of the Moffat Collection System Project for the following reasons:</i></p> <p>Response #1182-6: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1182-5 (ID 4398): <i>The surrounding neighborhoods, for which ours is one in addition to that of Coal Creek Canyon, expect to be severely impacted by the traffic congestion of haul trucks, lumber trucks and worker vehicles traveling up and down the canyon, over four years. This will create ambient pollution, not only from emission exhaust but also from fine, pulverized dirt since the road from Coal Creek Canyon to the dam is an unimproved, dirt road. Also we expect tremendous noise pollution from the sound of the trucks, diesel engines, rock crushing, and cement plant and earth-moving equipment, day and night for four years. We chose to live here to enjoy the sounds of nature and quiet. And visitors also come to enjoy that in the adjacent Boulder County Open Spaces and the National Forest areas. There will be major traffic safety issues and these along with the damage that will be caused to the roads used have not yet been addressed in the rough draft EIS, neither has there been a traffic study. The angle of switchback turns apparently do not allow for a safe turn of the large trucks without passing into the oncoming traffic lane in several locations. The roads include Hwy 72, Gross Dam Road and Flagstaff Rd.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>puma, bobcat, lynx (radio-collared from releases in Colorado), osprey, turkey, eagle and more. I believe there are more than one species of endangered plants on the north slope of the Dam including <i>Physaria</i> (Bell's twinpod).</p> <p>We believe that Denver Water's projected water needs are flawed. It based its projections on savings from conservation for the years 1980-1997 so that Denver customers could only conserve 16,000 AF/yr by 2030 (see DEIS, Ch. 1-10-12). They failed to base their projection of need on more recent conservation data:</p> <ol style="list-style-type: none"> 1. During the drought of 2002-2005, Denver Water maintained a surplus of over 30,000 AF. 2. In 2009, 9 billion gallons of water were "saved" due to cool, rainy weather and conservation measures. 9 billion gallons equals 27,000 AF. 3. Water for landscaping is 47% of total residential use in the Denver area. <p>FACT: Innovative conservation would cancel the projected shortfall, year after year. The Moffat Project is not needed.</p> <p>The cost of this project plus the added costs of mitigating problems, which haven't yet been included, are extremely high. Please stop this project and the mindset that leads to policies and planning that bank on ever-increasing supply rather than on lowering demand. Make Colorado a leader in water conservation and green energy. Colorado is still regarded as a place of natural beauty worth preserving.</p> <p>Sincerely,</p>  <p>Jake and Carla Owsley</p> 	<p><i>There is nothing that addresses either the road-safety issues or the damage that will happen to the roads as a result of the project. The mitigating costs should be added to the cost of the project should the project go forward.</i></p> <p>Response #1182-5: CDOT is responsible for maintenance of the State highways such as SH 72. Boulder County is responsible for maintenance of county roads, such as CR 77S, CR 132, etc. Boulder County maintains Gross Dam Road (CR 77S) from SH 73 to the railroad tracks. Denver Water currently maintains Gross Dam Road from the railroad track crossing to Flagstaff Road. During construction, Denver Water or its contractor would be responsible for maintaining all of Gross Dam Road. Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating the Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water would work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces the NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare.</p> <p>For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>would comply with all applicable noise ordinances and work with Boulder County to identify reasonable and feasible noise abatement measures for the Project construction period. The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Comment #1182-4 (ID 4399): <i>The loss of 20,000 to 30,000 trees is a major permanent impact. The carbon sink is gone.</i></p> <p>Response #1182-4: Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p> <p>GHG emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1182-3 (ID 4400): <i>Although it is acknowledged that the Denver Water Board holds the water rights from the Fraser River system, this project will increase the Fraser River diversion to 80%. In 2005, the American Rivers Association already ranked the Fraser as the 3rd Most Endangered River in the US. The Moffat project will decrease flows in the Fraser, Colorado, Williams Fork and Blue Rivers. Healthy upslope rivers are essential to the well being of Boulder and Colorado (and beyond) residents whether it is for personal or recreational use.</i></p> <p>Response #1182-3: DEIS Table 3.1-10 summarizes the effects of historical Moffat Collection System diversions on native flow at the Fraser River at Winter Park gage. On average, Denver Water diverted approximately 50% of the average annual native flow at the Fraser River at Winter Park gage for the 30-year period from 1975 through 2004. The percentage of native flow diverted by Denver Water depends on the location in the basin. Denver Water would divert over 90% of the native flow with the Moffat Project on-line from some small tributaries that do not have bypass flow requirements. Denver Water would divert about 76% of the native flow at the Winter Park gage with the Moffat Project on-line. At the Granby gage located near the mouth of the Fraser River, Denver Water's average annual Moffat Collection System diversions represent approximately 41% of the native flow. Tables showing the percentage of native flow diverted by Denver Water under Current Conditions, Full Use of the Existing System and the proposed Moffat Project flow were added to FEIS Appendix H.</p> <p>Flow related changes that have occurred in the Fraser River Basin since 1935 are due in part to Denver Water's existing Moffat Collection System diversions, however, these impacts are attributable</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>to past and present operations of that system, not the proposed Moffat Project. Under the proposed Moffat Project, additional diversions through the Moffat Tunnel would occur primarily during runoff months in May, June and July (see Table H-3.1 in DEIS Appendix H). The environmental effects of additional diversions attributable to the Moffat Project were evaluated and determined to be minimal to moderate depending on the resource.</p> <p>Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, that portion of the comment is simply noted.</p> <p>Comment #1182-2 (ID 4401): <i>There is no doubt that the wildlife living here will be impacted by the project. I have personally seen these animals in the vicinity of Gross Dam: the annual elk herds, bear, puma, bobcat, lynx (radio-collared from releases in Colorado), osprey, turkey, eagle and more. I believe there are more than one species of endangered plants on the north slope of the Dam including Physaria (Bell's twinpod).</i></p> <p>Response #1182-2: In addition to wildlife already discussed in the DEIS and FEIS, Osprey and bald eagle have been added to FEIS Table 3.9-1., Raptors Likely or Known to Occur in the Gross Reservoir Study Area. The Corps is not aware of any records of Bell's twinpod near the dam, and the habitat is not suitable. A related species, <i>Physaria vitulifera</i>, is likely to occur.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1182-1 (ID 4402): <i>We believe that Denver Water's projected water needs are flawed. It based its projections on savings from conservation for the years 1980-1997 so that Denver customers could only conserve 16,000 AF/yr by 2030 (see DEIS, Ch. 1-10-12). They failed to base their projection of need on more recent conservation data: 1. During the drought of 2002-2005, Denver Water maintained a surplus of over 30,000 AF. 2. In 2009, 9 billion gallons of water were "saved" due to cool, rainy weather and conservation measures. 9 billion gallons equals 27,000 AF. 3. Water for landscaping is 47% of total residential use in the Denver area. FACT: Innovative conservation would cancel the projected shortfall, year after year. The Moffat Project is not needed.</i></p> <p>Response #1182-1: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS</p>



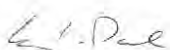
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>and FEIS Table 1-2.</p> <p>As shown in Table 1-1 in FEIS Section 1.4.1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A (Supplemental Evaluation of Denver Water Demand Projections) and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Water Supply Demand Changes Additional data was collected and analyzed for socioeconomics in FEIS Section 5.19. The socioeconomic analysis included an update of demand projections through reviewing the data used in Denver Water's current model and reviewing current population projection data from DRCOG, Colorado Department of Local Affairs (DOLA) or other agencies, as available, to examine any</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>differences in projected population numbers or rates between the older data and the current data.</p> <p>Comment #1182-7 (ID 4396): <i>The cost of this project plus the added costs of mitigating problems, which haven't yet been included, are extremely high. Please stop this project and the mindset that leads to policies and planning that bank on ever-increasing supply rather than on lowering demand. Make Colorado a leader in water conservation and green energy. Colorado is still regarded as a place of natural beauty worth preserving.</i></p> <p>Response #1182-7: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental and social effects according to NEPA and the Corps' CWA Section 404 regulations.</p> <p>Since the early 1970's, the number of people served by Denver Water has increased by almost 50% while the amount of treated water they use has only increased by only 6%. Additionally, Denver Water residential customers use 85 gpd, which is far ahead of the goal set by the environmental community to reach 90 gpd by 2020.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1185 Steve D. Paul, M.D., and Cary C. Paul</p>	<div style="text-align: center;">  </div> <p>Steve and Cary Paul [Redacted]</p> <p>March 15, 2010</p> <p>US Army Corps of Engineers Scott Franklin, Moffat EIS Project Manager 9307 S. Wadsworth Blvd. Littleton, CO 80128-6901</p> <p>Dear Sirs,</p> <p>We are opposed to the expansion project for Gross Reservoir. We are residents of the north edge of the FERC property, near the Lakeshore Park area. These are our concerns:</p> <p>Conservation of water resources could make this project unnecessary. One half of water usage in Denver households is for outside use. Just implementing watering restrictions would help. Better landscaping practices and recycling of gray water would help, as would more low flush toilets. Conservation would clearly be the most efficient and cost effective means of meeting a water shortfall, especially facing a project as expensive and environmentally damaging as the dam expansion. A more effective conservation option is needed in this planning process.</p> <p>The environmental impact could be huge. The FERC land is unique, situated between: Forest Service and Walker Ranch lands, it is home to countless species of plants and animals. Elk, bear, mountain lion, bobcat, eagle and osprey populations, depend on the land around Gross Reservoir for nesting, breeding and migration. Likewise, the Fraser River ecology will be further impacted by flow rates down to 20%.</p> <p>Numerous communities will be impacted, including Lakeshore Park, Flagstaff, Dam Road and Coal Creek residents. The area around Gross Reservoir has become an important resource for quiet recreation for Front Range residents as well.</p> <p>The environmental impact statement inadequately addresses mitigation efforts for the impact of noise, dust and other air pollution, the impact of blasting and traffic and impact on local well water and quality.</p> <p>In the big picture, acquiring more water and expanding growth with wasteful use will not be a good idea. Rather, we need to conserve and preserve our Colorado resources.</p> <p>Sincerely,</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  Stephen D. Paul, M.D. </div> <div style="text-align: center;">  Cary C. Paul </div> </div>	<p>Comment #1185-2 (ID 4078): <i>We are opposed to the expansion project for Gross Reservoir. We are residents of the north edge of the FERC property, near the Lakeshore Park area. These are our concerns:</i></p> <p>Response #1185-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1185-3 (ID 4079): <i>Conservation of water resources could make this project unnecessary. One half of water usage in Denver households is for outside use. Just implementing watering restrictions would help. Better landscaping practices and recycling of gray water would help, as would more low flush toilets. Conservation would clearly be the most efficient and cost effective means of meeting a water shortfall, especially facing a project as expensive and environmentally damaging as the dam expansion. A more effective conservation option is needed in this planning process.</i></p> <p>Response #1185-3: Watering Restrictions Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of 18,000 AF. Denver Water is implementing an aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>cc:</p> <p>Denver Water Attn: Brian Gogas Mail Code 415 1600 West 112th Ave Denver, CO 80204</p> <p>Mark Udall 999 Eighteenth St. Suite 1525 North Tower Denver, CO 80202</p> <p>Senator Michael Bennet 2300 15th St. Suite 450 Denver, CO 80202</p> <p>Jared Polis Washington DC Office 501 Cannon HOB Washington DC 20515</p> <p>Boulder County Commissioners Cindy Domenico, Ben Pearlman, Will Toor PO Box 471 Boulder CO 80306</p> <p>Environmental Protection Agency Region 8 800-EISC 1595 Wynkoop St. Denver, CO 80202-1129</p> <p>Sec. Kimberly Bose Federal Energy Regulatory Commission 888 Frist St. NE Washington, DC 20426 reference FERC project 2035</p> <p>Mayor John Hickenlooper 1437 Bannock St. Suite 350 Denver, CO 80202 reference Moffat Collection System</p>	<p>As shown in FEIS Table 1-1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Landscape Requirements Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1185-1 (ID 4083): <i>The environmental impact could be huge. The FERC land is unique, situated between Forest Service and Walker Ranch lands, it is home to countless species of plants and animals. Elk, bear, mountain lion, bobcat, eagle and osprey populations, depend on the land around Gross Reservoir for nesting, breeding and migration. Likewise, the Fraser River ecology will be further impacted by flow rates down to 20%. Numerous communities will be impacted, including Lakeshore Park, Flagstaff, Dam Road and Coal Creek residents. The area around Gross Reservoir has become an important resource for quiet recreation for Front Range residents as well.</i></p> <p>Response #1185-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1185-4 (ID 4081): <i>The environmental impact statement inadequately addresses mitigation efforts for the impact of noise, dust and other air pollution, the impact of blasting</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>and traffic and impact on local well water and quality.</i></p> <p>Response #1185-4: Noise and Air All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1.</p> <p>As discussed in FEIS Section 5.13.7, a land development construction permit would be required from the CDPHE APCD prior to beginning the land clearing activities. The operating terms and conditions of a land development permit include a Fugitive Dust Control Plan to control emissions of particulate matter (dust). The Fugitive Dust Control Plan would define specific control measures, such as those listed in FEIS Table 5.13 9, that must be complied with by Denver Water and its contractors throughout the Project to minimize the release of fugitive dust. While a Corps' Section 404 Permit would require that construction activities conform to Colorado State Air Quality standards, the Corps would not require a compensation plan as a permit condition. However, it is the Corps' understanding that Denver Water is voluntarily meeting directly with local residents affected by the construction of the proposed Project in an attempt to address residents' concerns.</p> <p>Blasting Blasting would occur when onsite aggregate quarries are in operation (approximately the first year of aggregate processing) and in the early phases of construction related to the dam foundation excavation. Typically the frequency of blasting is every 3 to 4 days due to the time it takes to drill the blast holes. Blasting would occur only during</p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>daylight hours, typically occurring at the end of the day shift. Safety precautions would be taken to keep unauthorized personnel away from blast areas. Blasts would be designed such that holes are appropriately spaced, loaded and stemmed to prevent air blast and excessive vibration and to limit any fly rock migrating outside of the blast zone. The blasting agent used would likely be ANFO, which when handled appropriately is a relatively safe and stable product used in construction and quarrying operations throughout the U.S. The blast would be designed to produce relatively low vibrations (ground motions) and blasting adjacent to the dam would be controlled to prevent any damage to the dam or the existing foundation. All blasting would be designed and overseen by a Colorado-licensed Blasting Engineer. Blasting would be designed specifically for Gross Dam and would only create ground vibrations and land motion appropriate for the dam structure to sustain. A seismograph would be used to monitor ground motions and air pressure (noise) vibrations produced from the blasting operations to ensure that acceleration thresholds are not exceeded. The land motion created from blasting dissipates rapidly from the source (i.e., the dam) and would be insufficient to collapse wells in the region.</p> <p>Traffic The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77S, SHs 72, 93, and 128, US 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During the peak construction period, about 35 trucks could deliver material daily. Additional</p>

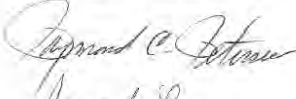
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site. Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1185-5 (ID 4082): <i>In the big picture, acquiring more water and expanding growth with wasteful use will not be a good idea. Rather, we need to conserve and preserve our Colorado resources.</i></p> <p>Response #1185-5: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1186 Carol J. and Raymond (Pete) C. Peterson, [REDACTED]</p>	<div style="text-align: center;">  </div> <p>March 11, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S Wadsworth Blvd. Littleton, Colorado 80128</p> <p>[REDACTED] Pete and Carol Petersen [REDACTED]</p> <p>RE: Moffat Tunnel Firing Project</p> <p>To Whom It May Concern:</p> <p>We are enclosing some comments that we hope you will take into consideration as you go through the permitting process for the Moffat Tunnel Firing Project.</p> <p>We are a fourth generation ranching family and have operated our ranch for twenty eight years. Our ranch is located on the [REDACTED]. We are a hay and cattle operation with water rights out of the Colorado River. We have electric water pumps that are stationary, which delivers our water to the meadows. The irrigation pumps were installed by the government during the Colorado-Big Thompson Project in 1947 and 1948.</p> <p>We are addressing the flows in the river when they are low. When the flow is low, the water table is also low and it is very hard for the pumps to lift the water to the ditches. The meadows have a gravel bottom and the surface water subs down through the gravel taking sand and gravel with it back to the river, the result changing the surface of the hay meadow leaving large holes and much unleveled meadow. Along with low flows the water temperature raises causing moss to grow. The moss covers the inlets, restricting the inlet pipe and causes the pumps to shut off. The increase in water temperature is not healthy for the aquatic life.</p> <p>We have been attending informative meetings on the impacts of the project. There have been studies on Stone Flies in the river and our county is working on a Stream Management Plan to see the impacts of low flows. It seems to us the natural environment</p>	<p>Comment #1186-2 (ID 4373): <i>We are enclosing some comments that we hope you will take into consideration as you go through the permitting process for the Moffat Tunnel Firing Project. We are a fourth generation ranching family and have operated our ranch for twenty eight years. Our ranch is located on the [REDACTED]. We are a hay and cattle operation with water rights out of the Colorado River. We have electric water pumps that are stationary, which delivers our water to the meadows. The irrigation pumps were installed by the government during the Colorado-Big Thompson Project in 1947 and 1948.</i></p> <p>Response #1186-2: The Corps notes the comment.</p> <p>Comment #1186-1 (ID 4374): <i>We are addressing the flows in the river when they are low. When the flow is low, the water table is also low and it is very hard for the pumps to lift the water to the ditches. The meadows have a gravel bottom and the surface water subs down through the gravel taking sand and gravel with it back to the river, the result changing the surface of the hay meadow leaving large holes and much unleveled meadow. Along with low flows the water temperature raises causing moss to grow. The moss covers the inlets, restricting the inlet pipe and causes the pumps to shut off. The increase in water temperature is not healthy for the aquatic life.</i></p> <p>Response #1186-1: Additional water quality analysis was performed for the Fraser River. Please refer to FEIS Sections 4.6.2 and 5.2.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>and health of the Colorado River is being sacrificed by low flows when we deplete the river.</p> <p>Our comments are based on observation, managing the ranch and working the irrigation system for twenty eight years. It is hard for any of us today to know the results of our decisions ten, twenty or thirty years into the future, therefore we would like to see a stipulation in a agreement that if due to the actions of the Moffat Project something is not working, the agreement needs to be revisited. We thank you in advance for considering our comments in your decision process.</p> <p>Respectfully Submitted,</p>  <p>Carol J. Peterson</p>	<p>Information provided in DEIS Sections 3.1 and 3.2 provides the reasons this Project would not cause a reduction in groundwater discharges into streams on the West Slope. A summary of the pertinent DEIS information follows.</p> <p>The groundwater flow system of the Fraser River watershed is hydraulically interconnected with the potentially affected stream segments. In the lower parts of the Fraser Valley, groundwater flows into the Fraser River and supports the base flow. This Project would only cause minor changes to the duration of the higher stream flows downstream of the existing diversion points during high runoff periods. At most, the additional diversions would cause only minor changes in stream levels downstream of the diversion points. However the maximum change in groundwater level would be less than the maximum change in the high-flow stream level, which was estimated in the DEIS to be about 8 inches. The changes would only occur during the months when runoff and water levels are high.</p> <p>There would be no effect on groundwater recharge rates in the uplands of the watershed, and thus there would be essentially no change on groundwater discharge rates into the Fraser River lower in the valley. Thus, the Project would have no effect on groundwater levels or flows throughout the majority of the Fraser River watershed beyond the immediate limits of the diverted streams. Next to those streams, groundwater levels would decrease slightly compared to Current Conditions during May, June, and July. During the low flow season, groundwater discharge would support the Fraser River base flow, as is currently the case.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Groundwater-Stream Interactions in the Fraser Valley</p> <p>The timing of the proposed diversions for the Moffat Project would not substantially affect recharge to the groundwater flow system in the West Slope watersheds. Rather the proposed Moffat Project would result in minimal effects to recharge, and to groundwater resources overall, for the following reasons.</p> <p>The Moffat Project would not make any changes to the locations or the physical features of any of the existing Denver Water diversion structures west of the Continental Divide. FEIS Figure 3.4-1 shows the Denver Water diversions (red dots) within the Fraser River Basin and subdivides the watershed into areas to facilitate discussion of this concern. Throughout the blue area on Figure 3.4-1, groundwater recharge rates would remain the same as for Current Conditions, both in the upland areas and along the stream channels, because these areas lie upstream of the Denver Water diversion points. The blue area on Figure 3.4-1 constitutes a large percentage of the whole watershed. This relatively large area includes the highest land surface elevations, precipitation rates, and snowpack amounts in this watershed. The geologic map from a recent USGS Technical Report referenced in DEIS Section 3.2 (Apodaca and Bails 1999) shows glacial deposits and alluvial gravels underlie large portions of the watershed. Fractured crystalline rocks are also exposed in many areas of the basin. Precipitation and snowmelt infiltrate through permeable soils and fractured rocks in upland areas of the basin to become groundwater recharge. Similar hydrogeologic conditions exist in the Williams Fork watershed where there are other Denver Water diversion structures.</p> <p>Figure 3.4-1 also shows another large area (shaded brown) in which the Proposed Action would not</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>affect groundwater recharge rates, neither in the upland areas or along the stream channels, because these areas do not lie downstream of any Denver Water diversion points. Fundamental hydrogeologic concepts indicate substantial recharge of the groundwater flow system occurs throughout the blue and brown areas on Figure 3.4-1. Recharge rates would not change in any of those areas as a consequence of the proposed Moffat Project.</p> <p>Unaffected stream channel segments are depicted with light blue lines on Figure 3.4-1. Along the light blue lines within the darker blue areas (above the diversion points), the rate and volume of groundwater recharge due to seepage through the bottom of stream beds would not change due to this Project at any time of year. In areas downstream of the diversions but outside the stream channel limits (all the white areas on Figure 3.4-1), there also would not be any change in groundwater recharge rates at any time because the hydrogeologic factors controlling infiltration of precipitation and snowmelt into the ground surface would not be altered by this Project. Thus, the Project has no potential to change the groundwater recharge rates within the vast majority of the whole watershed, which includes all the blue, brown and white areas on Figure 3.4-1. For the same reasons, the proposed diversions would have no effect on groundwater recharge rates throughout the vast majority of the Williams Fork River watershed.</p> <p>In the other parts of the Fraser River watershed directly downstream of the diversions, the proposed Moffat Project only has the potential to slightly reduce groundwater recharge rates in the relatively small areas directly beneath and immediately beside the stream channels where the diversions may reduce the extent of seasonal overbank flooding areas. These potentially affected stream channel</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>segments within the Fraser River watershed are shown as gold lines on Figure 3.4-1. DEIS Section 4.2 described stream flow reductions that could conceivably cause some reduction in the groundwater levels and recharge rates directly beneath the stream channels (gold lines on Figure 3.4-1) if percolation through the streambeds decrease. Groundwater recharge rates would decline only where (1) the stream reach is losing water by seepage to groundwater under Current Conditions, and (2) the diverted stream flow causes a substantial decrease in the stream level and the wetted area of the stream bed. The potential change in groundwater recharge along those stream segments (along the gold lines) would be small for reasons described in the following paragraphs.</p> <p>A recent USGS Technical Report (Apodaca and Bails 1999) for the Fraser River Basin, which is cited in DEIS Section 4.2, shows groundwater level contour patterns that indicate hydraulic gradients, and thus groundwater flow directions, converge toward the streams in the central portion of the Fraser River Basin downstream of the Denver Water diversion points. Where water table contours show groundwater flow converging toward streams, this indicates the streams are not providing groundwater recharge, but rather the streams are receiving groundwater discharge. The groundwater level contours also indicate that recharge occurs in higher elevation areas, upland of the streams. Therefore, even though the increased diversions may cause slight reductions of the stream levels, there would not be a consequent reduction in groundwater recharge within the watershed.</p> <p>Information provided in the DEIS indicates there would be, at most, very small changes in groundwater recharge directly beneath potentially affected stream segments. Streambed percolation rates would remain</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>essentially the same as for Current Conditions because: (1) stream levels and wetted areas of the streams would only change by a very small amount, and (2) the hydraulic conductance (permeability) of the streambed materials would not be affected by the Moffat Project. Stream flow changes were modeled using the PACSM (described in DEIS Section 3.1), and riparian and wetlands areas were characterized in DEIS Section 3.6.5. Details of the methodology used to estimate stream flow changes are presented in DEIS Section 4.1. Details of the methodology used to estimate changes in flood flows, water levels and wetted areas of the stream are presented in DEIS Section 4.6.</p> <p>Streambed seepage rates are expected to decrease by an exceedingly small amount because the timing of the diversions would coincide with high runoff periods in wet or average years. DEIS Appendix H-5 provides a series of flow duration curves based on PACSM results for a number of locations along the Fraser River and tributaries downstream of the diversion points. Flow duration curves are shown in Figures H-5.1 through H-5.11 for several locations of interest in the Fraser River Basin. Those curves indicate that the potential changes in flow durations attributable to this Project would be minimal. As shown by the flow duration curves, flow reductions resulting from the Proposed Action would occur at higher flow rates, which typically correspond with wet years. Table H-6.1 shows the percentage of days from May through June that stream flow changes would occur at several locations of interest. There would be little to no change in stream flow (flow change less than 1 cfs) more than 80% of the time at all locations in the basin upstream of the confluence with St. Louis Creek. Below the confluence with St. Louis Creek there would be little to no change in flow (flow change less than 1 cfs) between 70% and 80% of the time.</p>



Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Hydraulic modeling using the HEC-RAS model has been conducted to analyze the changes in stream flows and flood inundation area, at representative sites downstream of the diversion points. As part of the impact assessment for wetland and riparian areas, DEIS Section 4.6.1.2 provides an analysis of the interaction between stream flow changes and inundated areas in the affected drainage. DEIS Table 4.6-4 provides predicted changes in stream levels and channel widths for four detailed study sites along streams in the Fraser River watershed. The modeling results indicate Site FR1 (Fraser River) near Winter Park would have the largest reduction in stream level due to the Denver Water diversions; the peak stream level during a 2-year flow event would drop about 8 inches in that reach.</p> <p>The HEC-RAS model results also show changes in the wetted channel width at that location would be about 1.6 feet, which is very small in comparison to the existing 2-year water profile. DEIS Figure 4.6-1 illustrates the very small change in the 2-year water profile (stream width) that would be caused by the Proposed Action. Even extrapolating over a larger stream length, the reductions of flow-wetted area would be very small; (e.g., a 1-mile stream segment would experience a reduction in inundated area of about 0.4 acre).</p> <p>In summary, for the reasons enumerated above, the proposed diversions are expected to have negligible to minor direct impacts on groundwater levels and recharge. Declining stream levels would likely cause only very minor reductions in groundwater levels immediately adjacent to the streams. Overall, groundwater recharge rates would not change substantially within the West Slope watersheds. In wet and average years, the net effect of the Moffat Project on groundwater levels is expected to be negligible. During dry years, there would be no</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>additional water diversions, and thus, the Project would not impact groundwater levels or recharge rates.</p> <p>Comment #1186-3 (ID 4375): <i>We have been attending informative meetings on the impacts of the project. There have been studies on Stone Flies in the river and our county is working on a Stream Management Plan to see the impacts of low flows. It seems to us the natural environment and health of the Colorado River is being sacrificed by low flows when we deplete the river.</i></p> <p>Response #1186-3: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11, and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Comment #1186-4 (ID 4376): <i>Our comments are based on observation, managing the ranch and working the irrigation system for twenty eight years. It is hard for any of us today to know the results of our decisions ten, twenty or thirty years into the future, therefore we would like to see a stipulation in an agreement that if due to the actions of the Moffat Project something is not working, the agreement needs to be revisited. We thank you in advance for considering our comments in your decision process.</i></p> <p>Response #1186-4: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

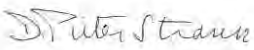
Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1190 D. Pieter Strauss</p>	<div style="text-align: center;">  March 13, 2010  </div> <p>US Army Corps of Engineers Attn: Scott Franklin Moffat EIS Project Manager 9307 S. Wadsworth Blvd. Littleton, CO 80128-6901</p> <p>Dear Sir,</p> <p>I would like to recommend that acceptance of the Draft Environmental Impact Statement for the Moffat Collection System Project (expansion of Gross Reservoir) be delayed until appropriate rigor is introduced into the plan. I am a resident of the Lakeshore Park area, overlooking the reservoir. I believe that the project will have a major unacceptable impact on the quality of my life, and that the impacts are not properly assessed or controlled.</p> <p>Summary:</p> <ol style="list-style-type: none"> 1. I do not believe that a project of this magnitude is needed. 2. The plan lacks impact metrics and mitigation metrics. 3. Increased traffic will cause increased accidents and death, yet there is no plan for mitigation. 4. There are no metrics for water pollution, and no plan for mitigation. 5. There are no metrics for pollution caused by incineration, and no plan for mitigation. 6. There are no metrics for noise pollution, and no plan for mitigation. 7. The impacts of the cement plant have not been quantified, and there is no plan in place to shut it down if its impact is unacceptable. 8. There are no metrics for light pollution, and no actions prescribed for reducing light pollution if it exceeds standards. <p>Detail:</p> <ol style="list-style-type: none"> 1. Need for the project has not adequately been demonstrated. You will no doubt receive critiques from others on this topic, so I will not go into detail. I would like to point out that the total amount of water available to eastern Colorado is finite, and that the 	<p>Comment #1190-4 (ID 4381): <i>I would like to recommend that acceptance of the Draft Environmental Impact Statement for the Moffat Collection System Project (expansion of Gross Reservoir) be delayed until appropriate rigor is introduced into the plan. I am a resident of the Lakeshore Park area, overlooking the reservoir. I believe that the project will have a major unacceptable impact on the quality of my life, and that the impacts are not properly assessed or controlled.</i></p> <p>Response #1190-4: As a result of comments received on the DEIS, new analyses were conducted for the following resources in the FEIS: water quality (FEIS Section 5.2), groundwater (FEIS Section 5.4), aquatic biological resources (FEIS Section 5.11), wetland and riparian areas (FEIS Section 5.8), wildlife (FEIS Section 5.9), sensitive species (FEIS Section 5.10), air quality (FEIS Section 5.13), and socioeconomics (FEIS Section 5.19).</p> <p>Comment #1190-5 (ID 4382): <i>Summary: 1. I do not believe that a project of this magnitude is needed. 2. The plan lacks impact metrics and mitigation metrics. 3. Increased traffic will cause increased accidents and death, yet there is no plan for mitigation. 4. There are no metrics for water pollution, and no plan for mitigation. 5. There are no metrics for pollution caused by incineration, and no plan for mitigation. 6. There are no metrics for noise pollution, and no plan for mitigation. 7. The impacts of the cement plant have not been quantified, and there is no plan in place to shut it down if its impact is unacceptable. 8. There are no metrics for light pollution, and no actions prescribed for reducing light pollution if it exceeds standards.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>sooner we learn to live within our means rather than plunder surrounding areas, the better for all residents of Colorado.</p> <p>2. The parts of the plan I have read demonstrate a woeful lack of metrics with regard to impacts and mitigation. Terms like "negligible", "moderate" and "major" are useless in project planning. How do project managers determine when an impact has grown from negligible to moderate? If an impact has increased, there is no detail on how mitigation efforts are to be increased -- in fact, there is no requirement at all that mitigation should be escalated.</p> <p>3. Increased traffic on Coal Creek Canyon and Flagstaff roads. Currently, there are a certain number of accidents which occur per year. What is that number? Increased traffic will result in increased likelihood of accidents. At what point will increased accidents and fatalities trigger a mitigating response? What is that mitigating response?</p> <p>4. Logging and quarrying will add contaminants to the water in Gross Reservoir, South Boulder Creek below Gross Reservoir, and perhaps in private wells downstream. What are the current contaminant levels? At what increased levels will mitigating actions be taken? What are those actions?</p> <p>5. Some trees are going to be incinerated. The plan lists inputs and ash outputs for the incinerator -- but does not detail atmospheric pollution. What pollutants will be added to the air by the incineration process? What are their current levels? At what increased levels will mitigating actions be taken?</p> <p>This item is of major concern to me. Both my wife and I suffer from respiratory problems. We moved to the foothills of the Rocky Mountains to get to clean air. Increased pollution introduced by this project may make us sick or kill us.</p> <p>And no: this is not a case of "you moved next to an airport, and now you are irritated by planes taking off?" We performed the best due diligence we could when we moved here in 1988. We took into account the ugly scar which Gross Reservoir presents when, in the winter, the water level is 75 feet down. Nothing in our research turned up the possibility that Gross Dam could be raised, and that we might be living in the middle of a major construction project for four years.</p> <p>6. Some trees are going to be lifted out by helicopter. One of the helicopter take-off points is directly downhill from our house. We face the prospect of the incredible noise generated by helicopters -- and dust and pollution -- less than 100 yards off our deck. What are the current noise levels on our deck? What decibel levels can we expect when the helicopter is taking off and landing? How long will this go on? At what point will the damage being done to our lives trigger mitigating actions? Who is tasked with</p>	<p>Response #1190-5:</p> <ol style="list-style-type: none"> 1. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA. 2. Appropriate conceptual mitigation components were incorporated into FEIS Appendix M. If a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated as required and as appropriate. 3. The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction. 4. Detailed water quality analysis was performed for the EIS. Please refer to FEIS Sections 4.6.2 and 5.2. Appropriate conceptual mitigation components were incorporated into FEIS Appendix M. If a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated as required and as appropriate. 5. Air quality impacts from tree removal and residue disposal are discussed in FEIS Section 5.13.1.1. Denver Water would work with the USFS to determine the best disposal option, which may involve the use of an ACI onsite or grinding the trees and removing the chips. ACIs use a blower to create a high velocity air flow to a combustor box. This provides higher temperatures and longer residence time for combustion than open burning, resulting in more complete combustion and fewer particulate emissions (smoke).

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>determining when these actions should be taken, and seeing to it that they are properly carried out?</p> <p>7. A cement plant will be constructed due southeast of our house. The plant will run around the clock. The noise which it generates will be focused by the terrain so that it will be directed at our house. How much noise, measured in decibels on our deck, will be considered unacceptable? Who will measure it, and what will they do if the level surpasses promised metrics?</p> <p>8. There is no discussion of light pollution. A recent summer-long project replacing the grates for the hydro-electric generator included floodlights. Presumably these floodlights were a security measure to prevent vandalism or theft. These lights were not aimed at the ground, where they could arguably have had some beneficial effect. Instead, at least some of the lights were aimed at an angle into the air -- they were pointed directly at my deck, which is situated about 400 feet above the surface of the water. We lost the use of our deck in the evenings for the entire summer -- it was like sitting in the dark, staring into an oncoming car's headlights.</p> <p>So my question is, will this project be lit at night? Will it obey Boulder County construction standards, which require outdoor lights to be aimed at the ground? What type of lights will be used? How much light should be measured at certain distances from the project? What will be done if the metrics are exceeded, and standards are not met?</p> <p>If this project had been presented to me as a business plan, I would have rejected it. There is no way to measure impacts, no way to determine if they are unacceptable, and no plan for mitigation if impacts are not, in fact, "negligible", but are in fact "major".</p> <p>Sincerely,</p>  <p>D. Pieter Strauss</p>	<p>A recent study evaluating the effectiveness of ACIs showed the ACI to give a 23-fold reduction in PM2.5 emissions over pile burns, and a 33-fold reduction over understory burns according to "Reducing PM2.5 Emissions through Technology" (USFS, Rocky Mountain Research Station, Fires Sciences Laboratory, Missoula, Montana).</p> <p>6. All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1.</p> <p>7. The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare. A Corps' Section 404 Permit, if issued for one of the Moffat EIS alternatives, would require that construction activities conform to Colorado State Air Quality standards.</p> <p>For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with applicable noise ordinances.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Concrete batch plants mix sand, aggregate, cement and water (either in a mix truck or a stationary mixer) to produce concrete. Particulate matter, consisting primarily of cement and pozzolan dust but including some aggregate and sand dust emissions, is the primary pollutant of concern. Particulate emissions from the Project's concrete batch plant would be controlled by devices such as baghouses (i.e., fabric filters used to filter exhaust air during pneumatic transfers of material). The air emissions from the concrete batch plant have been estimated and incorporated in the summary tables of construction emissions presented in FEIS Section 5.13.</p> <p>8. In general, construction activities would occur during the day and night lighting would not be required other than for safety and security purposes. However, there may be infrequent periods during the construction phase of the Project when double or even triple work shifts would be required. Increased night lighting would be required during these infrequent periods and it would be visible from surrounding nearby residences and wildlife during this construction activity. Work hours for all construction would be limited in conformance with applicable local ordinances. Following completion of construction, lighting on the raised dam would be the same as currently exists. Therefore, no long term impacts from lighting are expected.</p> <p>Comment #1190-6 (ID 4383): <i>Detail: Need for the project has not adequately been demonstrated. You will no doubt receive critiques from others on this topic, so I will not go into detail. I would like to point out that the total amount of water available to eastern Colorado is finite, and that the sooner we learn to live within our means rather than plunder surrounding areas, the better for all residents of Colorado.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1190-6: The Corps notes the comment.</p> <p>Comment #1190-1 (ID 4384): <i>The parts of the plan I have read demonstrate a woeful lack of metrics with regard to impacts and mitigation. Terms like "negligible", "moderate" and "major" are useless in project planning. How do project managers determine when an impact has grown from negligible to moderate? If an impact has increased, there is no detail on how mitigation efforts are to be increased -- in fact, there is no requirement at all that mitigation should be escalated.</i></p> <p>Response #1190-1: DEIS Section 4.0 states: "Impact thresholds are defined as changes in intensity in terms of the degree, level, or strength of an impact. The following thresholds are used to determine the change in intensity of impacts resulting from a Project alternative:</p> <p>No impact: no discernible effect</p> <p>Negligible: effect is at the lowest level of detection and causes very little or no disturbance</p> <p>Minor: effect that is slight, but detectable, with some perceptible effects of disturbance</p> <p>Moderate: effect is readily apparent and has measurable effects of disturbance</p> <p>Major: effect is readily apparent and has substantial effects of disturbance"</p> <p>These thresholds were applied to the magnitude (the Corps uses the word "intensity") of impact for each environmental resource/biological condition based on technical analysis and professional judgment. When possible, the impacts were quantified before an impact threshold was applied to them.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1190-2 (ID 4385): <i>Increased traffic on Coal Creek Canyon and Flagstaff roads. Currently, there are a certain number of accidents which occur per year. What is that number? Increased traffic will result in increased likelihood of accidents. At what point will increased accidents and fatalities trigger a mitigating response? What is that mitigating response?</i></p> <p>Response #1190-2: Traffic accident counts can be obtained from the Boulder County Transportation Planning Department and vary year-to-year.</p> <p>The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Comment #1190-3 (ID 4386): <i>Logging and quarrying will add contaminants to the water in Gross Reservoir, South Boulder Creek below Gross Reservoir, and perhaps in private wells downstream. What are the current contaminant levels? At what increased levels will mitigating actions be taken? What are those actions?</i></p> <p>Response #1190-3: Currently, there are no known contaminants in the reservoir or in South Boulder Creek below the reservoir. The available water quality data are provided in DEIS Sections 3.1.5.5 and 4.1 and in DEIS Tables 4.1-20 and 4.1-21.</p> <p>As described in DEIS Section 4.1.1, increasing the reservoir capacity may change the water quality of the reservoir, particularly in the initial years of filling. One likely change is an increase in organic matter</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>and the associated increase in water quality parameters such as total organic carbon and decrease in dissolved oxygen (due to decay of organic matter). As described in DEIS Chapter 2, this impact would be minimized by removal of trees and vegetation around the reservoir rim prior to initial filling, but some organic content would remain in areas to be inundated. Since the Proposed Action would not affect water quality in South Boulder Creek upstream of Gross Reservoir, changes in water quality in Gross Reservoir due to Denver Water's actions are expected to be minimal. A slight increase in phosphorus concentrations and chlorophyll a concentration are possible due to loading from newly inundated land and are expected to decrease to approximately similar levels over the long term. The impact on water quality in Gross Reservoir would be minor for the short-term and negligible for the long-term.</p> <p>Logging and quarrying for the dam raise are not expected to add contaminants to the surface water or groundwater, except there may be a temporary increase in erosion and sedimentation in the construction area. Best construction practices to be implemented include measures for erosion and sediment control. Plans to prevent water and wind erosion during construction are required by the State of Colorado. CDPHE WQCD would require a stormwater discharge permit (refer to DEIS Section 4.1.7), and the APCD would require a fugitive dust control plan (DEIS Section 4.11.7). These plans would incorporate Best Management Practices (BMPs) to prevent soil losses during construction. Methods may include controlling surface water flows and installation of sediment barriers such as silt fences of straw bales or erosion control fabric. Erosion controls would be inspected regularly during construction, especially where construction is active and after precipitation. These controls would be installed prior to soil disturbance. Nonetheless, if</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>heavy precipitation occurs during the construction period, there would likely be a minor increase in turbidity of the reservoir water and downstream.</p> <p>A Materials Handling Plan would be developed and implemented by Denver Water to properly handle and dispose of materials generated during the Project. For example, contractors would store fuel and other hazardous materials associated with construction activities away from water bodies and take appropriate precautions to avoid spilling hazardous materials or fuels during construction.</p> <p>Comment #1190-7 (ID 4387): <i>Some trees are going to be incinerated. The plan lists inputs and ash outputs for the incinerator -- but does not detail atmospheric pollution. What pollutants will be added to the air by the incineration process? What are their current levels? At what increased levels will mitigating actions be taken? This item is of major concern to me. Both my wife and I suffer from respiratory problems. We moved to the foothills of the Rocky Mountains to get to clean air. Increased pollution introduced by this project may make us sick or kill us. And no: this is not a case of "you moved next to an airport, and now you are irritated by planes taking off?" We performed the best due diligence we could when we moved here in 1988. We took into account the ugly scar which Gross Reservoir presents when, in the winter, the water level is 75 feet down. Nothing in our research turned up the possibility that Gross Dam could be raised, and that we might be living in the middle of a major construction project for four years.</i></p> <p>Response #1190-7: Air quality impacts from tree removal and residue disposal are discussed in FEIS Section 5.13.1.1. Denver Water would work with the USFS to determine the best disposal option, which may involve the use of an ACI onsite or grinding the trees</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>and removing the chips.</p> <p>ACIs use a blower to create a high velocity air flow to a combustor box. This provides higher temperatures and longer residence time for combustion than open burning, resulting in more complete combustion and fewer particulate emissions (smoke). A recent study evaluating the effectiveness of ACIs showed the ACI to give a 23-fold reduction in PM2.5 emissions over pile burns, and a 33-fold reduction over understory burns according to “Reducing PM2.5 Emissions through Technology” (USFS, Rocky Mountain Research Station, Fires Sciences Laboratory, Missoula, MT).</p> <p>Comment #1190-8 (ID 4388): <i>Some trees are going to be lifted out by helicopter. One of the helicopter take-off points is directly downhill from our house. We face the prospect of the incredible noise generated by helicopters -- and dust and pollution -- less than 100 yards off our deck. What are the current noise levels on our deck? What decibel levels can we expect when the helicopter is taking off and landing? How long will this go on? At what point will the damage being done to our lives trigger mitigating actions? Who is tasked with determining when these actions should be taken, and seeing to it that they are properly carried out?</i></p> <p>Response #1190-8: On-site temporary noise impacts would occur from timber harvesting at Gross Reservoir. Noise levels associated with tree removal are not expected to exceed the relevant standards and guidelines as summarized in FEIS Table 5.14-1 and would generally operate in the range of 70 to 90 dBA. On-site construction noise may periodically exceed the EPA noise threshold of 70 dBA for public exposure, but the public would not be exposed to those levels on a continuous basis. For purposes of EIS analysis,</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards.</p> <p>Denver Water evaluated several tree removal options. Limited road access to the reservoir shore, steep slopes and large rock outcrops complicate tree removal in most areas along the shoreline. Ground-based systems are proposed where roads exist or where temporary road construction is possible. Hydro-axing is proposed in the upper reaches of Forsythe Canyon due to steep slopes and heavy rock. Helicopter yarding is proposed where road access is not available or impossible to construct. The tree removal plan shows several possible landing sites for helicopters during tree removal and some of these are below the Lakeshore neighborhood. Due to the expense of using helicopters, Denver Water would keep the use of helicopters to a minimum. Denver Water would develop the final tree removal plan in cooperation with the USFS, Colorado State Forest Service, and Boulder County. Denver Water has proposed working with the USFS to identify recycling opportunities. The current Forest Management Plan is under the authority of FERC in a joint effort with the USFS. The Corps believes that Denver Water would comply with any conditions required by FERC.</p> <p>The concrete batch plant would be located at the Gross Dam staging area (on the south dam abutment) as shown on FEIS Figure 2-3 and would operate from April through November.</p> <p>Comment #1190-9 (ID 4389): <i>A cement plant will be constructed due southeast of our house. The plant will run around the clock. The noise which it generates will be focused by the terrain so that it will be directed at our house. How much noise, measured in decibels on our deck, will be considered unacceptable? Who will measure it,</i></p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>and what will they do if the level surpasses promised metrics?</i></p> <p>Response #1190-9: As discussed in DEIS Section 4.12, noise levels are regulated by the State of Colorado and by Boulder County. FEIS Table 4.12-1 depicts noise levels for various activities and FEIS Section 4.12.1 describes the noise levels associated with different phases of the proposed Project. Equipment associated with construction activities is expected to operate in the range of 70 to 90 dBA 50 feet from the source. At distances greater than 50 feet, noise levels diminish rapidly. Once the pouring of concrete starts, it must be done in a continuous manner or a cold joint would form in the dam. These cold joints require additional work (sandblasting and grouting) before additional concrete can be placed and could result in the development of weak planes in the dam. In order to maintain the highest quality of structural integrity of the dam – the number of cold joints must be minimized. Thus, once the pouring of concrete starts, it must be done in a continuous manner (i.e., 24 hours a day/7 days per week).</p> <p>Comment #1190-10 (ID 4390): <i>There is no discussion of light pollution. A recent summer-long project replacing the grates for the hydro-electric generator included floodlights. Presumably these floodlights were a security measure to prevent vandalism or theft. These lights were not aimed at the ground, where they could arguably have had some beneficial effect. Instead, at least some of the lights were aimed at an angle into the air -- they were pointed directly at my deck, which is situated about 400 feet above the surface of the water. We lost the use of our deck in the evenings for the entire summer -- it was like sitting in the dark, staring into an oncoming car's headlights. So my question is, will this project be lit at night? Will it obey Boulder County construction standards,</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>which require outdoor lights to be aimed at the ground? What type of lights will be used? How much light should be measured at certain distances from the project? What will be done if the metrics are exceeded, and standards are not met?</i></p> <p>Response #1190-10: In general, construction activities would occur during the day and night lighting would not be required other than for safety and security purposes. However, there may be infrequent periods during the construction phase of the Project when double or even triple work shifts would be required. Increased night lighting would be required during these infrequent periods and it would be visible from surrounding nearby residences and wildlife during this construction activity. Work hours for all construction would be limited in conformance with applicable local ordinances. Following completion of construction, lighting on the raised dam would be the same as currently exists. Therefore, no long-term impacts from lighting are expected.</p> <p>Comment #1190-11 (ID 4391): <i>If this project had been presented to me as a business plan, I would have rejected it. There is no way to measure impacts, no way to determine if they are unacceptable, and no plan for mitigation if impacts are not, in fact, "negligible", but are in fact "major".</i></p> <p>Response #1190-11: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
<p>Comment #1194 Erika Winkelhake</p>	<div style="text-align: center;">  </div> <p style="text-align: right;">Erika Winkelhake [REDACTED] 10 March, 2010</p> <p>Mr. Scott Franklin U.S. Army Corps of Engineers 9307 South Wadsworth Blvd. Littleton, CO 80128-6901</p> <p>Re: DRAFT ENVIRONMENTAL IMPACT STATEMENT MOFFAT COLLECTION SYSTEM PROJECT Denver Water U.S. Army Corps of Engineers</p> <p>Dear Mr. Franklin:</p> <p>As a homeowner on Gross Dam Road of Coal Creek Canyon, I have some very serious concerns about the proposed Moffat Collection System Project, as stated below.</p> <p>NEED According to the U.S. Army Corps of Engineers (USACE) document, Denver Water's stated need is to increase its water storage supply to meet its projected shortfall of 34,000 acre feet by 2030. It estimates that 18,000 acre feet would come from the Moffat Project and 16,000 acre feet would come from additional conservation. The graph presented is undocumented and shows no underlying study to justify the amounts shown. I could not find any documentation that shows any correlation between the populations currently served both in Denver or under contract to Denver Water that documents future needs with and without projected growth. This is an absolutely essential study which is essential for intelligent assessment of future needs since future growth can be regulated and controlled by municipalities.</p> <p>In my opinion, the demand within the City and County of Denver cannot expand as much as the SMSA as a whole for several reasons. The first is geographic impossibility since it is completely surrounded by other communities. Expansion is necessarily limited to infill and increased density. However, several socio/economic factors may have a very negative impact on revenues, taxes, and the ability to attract businesses. In 2008, a study ranked the dropout rate in Denver Public Schools one of the worst in the nation, according to a report out from America's Promise Alliance. Denver now also has an extremely high crime rate in a number of categories. 2006 crime comparisons among Denver, Los Angeles and Chicago show Denver to have the highest crime rate per 100,000 people for rape, burglary, theft and auto theft. Denver had a higher assault rate per 100,000 than Los Angeles. It exceeded national averages in all categories. These factors will have a</p> <p style="text-align: right;">1</p>	<p>Comment #1194-26 (ID 4344): <i>As a homeowner on Gross Dam Road of Coal Creek Canyon, I have some very serious concerns about the proposed Moffat Collection System Project, as stated below.</i></p> <p>Response #1194-26: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1194-21 (ID 4345): <i>NEED According to the U.S. Army Corps of Engineers (USACE) document, Denver Water's stated need is to increase its water storage supply to meet its projected shortfall of 34,000 acre feet by 2030. It estimates that 18,000 acre feet would come from the Moffat Project and 16,000 acre feet would come from additional conservation. The graph presented is undocumented and shows no underlying study to justify the amounts shown. I could not find any documentation that shows any correlation between the populations currently served both in Denver or under contract to Denver Water that documents future needs with and without projected growth. This is an absolutely essential study which is essential for intelligent assessment of future needs since future growth can be regulated and controlled by municipalities.</i></p> <p>Response #1194-21: Chapter 1 of the EIS (Purpose and Need) describes the existing and future demands faced by Denver Water and also includes a section on conservation. Further details of the demand projections (background, types of data inputs, assumptions and methodologies) can be found in Denver Water's IRPs as well as in the two technical memoranda provided in Appendix A.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>negative impact on the future of Denver and its ability to attract new businesses and professionals. This may well make it more difficult for Denver Water and the City of Denver to find long-term financing and to meet future financial obligations.</p> <p>Certainly a major stakeholder is the body of Denver taxpayers that would ultimately bear the responsibility for any defaulted payment by the Denver Water Board should the financial bases continue to erode. However, this was not put to the Denver Electorate in a vote, nor were there meetings in the neighborhoods. While tax funds are not used to offset Denver Water financial obligations at this point, a revenue use and source statement projecting revenues with and without the Moffat Project and with and without expansion of its service base is needed to determine under what circumstances this project would even be financially feasible. A decreasing financial base plus added financial obligations could create financial difficulties, a scene that is becoming very familiar for metropolitan areas across the country.</p> <p>According to the brochure published by Denver Water entitled "Moffat Collection System Project: Construction & Tree Removal," Denver Water serves 1.3 million people in the city of Denver and many surrounding suburbs. According to information in Wikipedia, the 2008 population of Denver is estimated at 598,707. For convenience, if this is rounded up to 600,000, the remaining 700,000 people are served under contractual agreements with Denver. According to information from the Denver Water website, there are at least 70 contracts under 4 categories, but all receive their water from Denver Water.</p> <p>From the standpoint of need, a primary need is that of the people of Denver. Within Denver, any increase in population should be offset by conservation. A secondary need is the current households being served by Denver Water under contractual obligations.</p> <p>Expansion of service areas and people served does not constitute a need, but rather a business decision to expand a profit center and bring additional funds to Denver Water. Furthermore, nowhere in the proposal is there a requirement that Denver set out an explicit set of conservation criteria that must be strictly applied to by the city of Denver AND all subdivisions and communities that are or may be served by Denver Water. Such criteria would establish minimum conservation criteria for any new construction and recommendations and use of service fees to bring about conservation for established homes, businesses and other entities. This failure to contractually require contractor compliance with written, explicit and stringent water conservation requirements and its strict enforcement encourages a demand for more water than should be realistically required. Neither Denver Water nor the USACE has provided any studies and/or documentation to illustrate need as defined as serving only the current customers.</p> <p>Denver Water customers have demonstrated that they are capable of conserving water much more effectively during times of drought than they are doing today.</p>	<p>Additional information about conservation can be found in the Conservation Appendix to the 2002 IRP as well as in the technical memoranda of Appendix A of the EIS and in Denver Water's current conservation plan, also provided in Appendix A.</p> <p>The socioeconomic analysis included an update of demand projections through reviewing the data used in Denver Water's current model and reviewing current population projection data from DRCOG, Colorado DOLA or other agencies, as available, to examine any differences in projected population numbers or rates between the older data and the current data.</p> <p>Denver Water does not have control over growth and development policies, either within the City of Denver or in surrounding municipalities that are Denver Water customers. However, Denver Water does have the responsibility to provide water service to customers, including any and all additional future customers in its service areas.</p> <p>Comment #1194-23 (ID 4346): <i>In my opinion, the demand within the City and County of Denver cannot expand as much as the SMSA as a whole for several reasons. The first is geographic impossibility since it is completely surrounded by other communities. Expansion is necessarily limited to infill and increased density. However, several socio/economic factors may have a very negative impact on revenues, taxes, and the ability to attract businesses. In 2008, a study ranked the dropout rate in Denver Public Schools one of the worst in the nation, according to a report out from America's Promise Alliance. Denver now also has an extremely high crime rate in a number of categories.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>Current usage is up 27% over the drought years as restrictions have been lifted. Much of this is used to water lawns. Clearly encouragement of replacement of high water demand lawns with xeriscaping and low moisture requirement grasses would be a long-term change to an ecologically supportable system rather than supporting high water needs applications by making more water available. A dramatic example of this is the fact that, by watering lawns a few minutes less, customers can save 2 BILLION gallons of water or approximately 3,000 acre feet of water a year.</p> <p>The extent to which Denver Water can further expand its service area is also unclear. The difficult policy issues that Denver Water must resolve, as well as legal uncertainties regarding the city's Blue River imports are not addressed in the draft environmental impact study. The Blue River Decree governing Denver's use of its Colorado River supplies restricts these waters for use in the "metropolitan area," a requirement that can be interpreted in multiple ways. In addition, the goal of efficient use of trans-basin water is articulated in the Blue River decree, which requires Denver Water to "exercise due diligence" to reuse water imported from the Colorado River to meet its municipal needs. The DEIS does not address the issues related to restriction to metropolitan area, not does it address the projected reuse of trans-basin water. The anticipated provision of water to the City of Arvada for development near CO93 and CO72 clearly underscores the need to legally define the meaning of "metropolitan area" as envisioned within the context of the Blue River decree.</p> <p>While population growth along the front range has been projected by a number of sources with different criteria, advancing the Moffat Project as an absolute necessity to meet future development is deceptive. Denver Water's choice to expand its service as a business decision does not constitute a need. Furthermore, the expansion of its customer base encourages development that is often not in the best interests of communities or the State of Colorado. Since there are no stringent requirements for conservation in many communities served under contract to Denver Water, developers only need water to create profitable developments. Meanwhile this urban sprawl is eagerly promoted by the communities who look to enhanced real estate tax bases and by Denver Water looking for additional revenues in the form of tap fees, etc. Clearly the developers and the communities that approve the developments are stakeholders with minimal obligations.</p> <p>Meanwhile the City of Denver is itself setting an extremely poor example by neglecting its infrastructure. On February 3, 2010, a water main broke not once but twice in North Denver. According to a story from CBS-4 News, in 2009 Denver Water fixed more than 600 broken pipes. The article cites Stacy Chesney with Denver Water saying that breaks happen almost every day in the city. The article notes that last year Denver Water lost 50 million gallons of water to burst pipes. However, instead of replacing infrastructure, Denver Water is diverting funding and borrowing capacity to increase its water holdings and its profit base through expansion. Timely maintenance, replacement and modernization of water</p>	<p><i>2006 crime comparisons among Denver, Los Angeles and Chicago show Denver to have the highest crime rate per 100,000 people for rape, burglary, theft and auto theft. Denver had a higher assault rate per 100,000 than Los Angeles. It exceeded national averages in all categories. These factors will have a negative impact on the future of Denver and its ability to attract new businesses and professionals. This may well make it more difficult for Denver Water and the City of Denver to find long-term financing and to meet future financial obligations. Certainly a major stakeholder is the body of Denver taxpayers that would ultimately bear the responsibility for any defaulted payment by the Denver Water Board should the financial bases continue to erode. However, this was not put to the Denver Electorate in a vote, nor were there meetings in the neighborhoods. While tax funds are not used to offset Denver Water financial obligations at this point, a revenue use and source statement projecting revenues with and without the Moffat Project and with and without expansion of its service base is needed to determine under what circumstances this project would even be financially feasible. A decreasing financial base plus added financial obligations could create financial difficulties, a scene that is becoming very familiar for metropolitan areas across the country.</i></p> <p>Response #1194-23: The City and County of Denver makes up one component of Denver Water's customers, as described in Chapter 1 (Section 1.3.3). That section of the EIS states that only about half of Denver Water's customer accounts are located within the city and county of Denver. Denver Water also serves a number of suburban distributors and a small number of other contracts. Growth of Denver Water's customer accounts would occur both within Denver and as a result of growth in surrounding communities. The population projections were updated for the FEIS using recognized sources of forecasts.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>infrastructure is not addressed in terms of contract requirements or conservation of water.</p> <p>URBAN SPRAWL The information I gleaned from the Denver Water website is that it currently serves at least 70 subdivisions and communities. Many are looking to expand. The City of Arvada has contracted with Denver Water to receive 3,000 acre feet from the expanded reservoir. Arvada has been aggressively seeking expansion and supporting the efforts of developers. It has chosen to incorporate areas in an irregular, gerrymandered manner for the benefit of developers and against the wishes of local rural residents. The DEIS does not address this use of water which encourages urban sprawl, nor does it differentiate between water that is needed for the current Denver and contractual users versus anticipated users where expansion is predicated on the availability of additional water resources.</p> <p>STANDARDIZATION OF UNITS OF MEASUREMENT The usage amounts given by Denver Water are in gallons per household, while all other criteria are given in persons or acre feet without any correlation. The USACE and Denver Water have an obligation to provide information that can be intelligently evaluated based on a uniform measurement standard. This requires that the usage statistics be presented in the same units of measure and then referenced against other units of measure that may be useful in evaluation. It is not the responsibility of the stakeholders to try to ferret out information. It is incumbent on the USACE.</p> <p>IMBALANCE IN WATER COLLECTION SYSTEM Denver Water has stated that another reason for the Moffat Project is to correct a serious imbalance in its water collection system, in which about 80 percent of the supply exists on the south side of the system. Denver Water currently owns or has access to water from the following reservoir and sources:</p> <ol style="list-style-type: none"> 1. Antero Reservoir: Near Fairplay, CO 19,881 acre feet 2. Dillon Reservoir: Near Dillon, CO 267,304 acre feet 3. Cheesman Reservoir: Near Pine Junction, CO 79,064 acre feet 4. Eleven Mile Reservoir: Near Fairplay, CO 97,779 acre feet 5. Gross Reservoir: Near Boulder, CO 41,811 acre feet 6. Williams Fork Reservoir: Near Parshall, CO 96,822 acre feet 7. Waterton Canyon/Strontia Springs Reservoir: South of Chatfield Dam 7,863 acre feet 8. Highline Canal: Access to irrigation water. 9. Chatfield Reservoir: owned and operated by the USACE Denver Water can use about 27,400 acre-feet of space which it fills using its own water rights. <p>The stated "imbalance" between Denver Water's north and south systems is based on the relatively small storage capacity of Gross Reservoir compared to the whole south system. The majority of the water held in the South System is garnered from the South Platte water shed. Therefore, the emphasis on more south reservoirs is</p>	<p>Denver Water is a not-for-profit organization, and a significant portion of Denver Water's annual costs do not vary with the amount of water sold. When those costs increase, the costs to ratepayers increase as well. All Denver Water Customers are metered. Denver Water implements a Block Census Rate Structure (i.e., the more one uses, the more one pays). Rates are based on a cost of service analysis comprised of customer classes (e.g., residential, industrial, commercial, and institutional) and by whether customers live inside or outside the City and County of Denver. Costs are recovered from each customer class in proportion to the cost of providing the service to each class. Rates consist of a consumption charge per 1,000 gallons consumed a fixed, per account service charge.</p> <p>Denver Water raised rates in February 2010 and March 2011 to cover maintenance, repair and upgrades to existing facilities and expanding its system capacity over the next decade to meet the future needs of its customers. Plans for expansion include the utility's recycled water system, enlarging Gross Reservoir, and finishing the development of gravel pits that store water to meet downstream water requirements.</p> <p>In a 2011 rating by Parenting Magazine of "Best cities for Families," the city of Denver was ranked 27th. Additionally, Bloomberg Business Week ranked Denver 27th as well in a 2011 survey entitled, "Which is America's Best City?". These surveys are in line with recent DRCOG projections (2007), which show an average annual growth of 1.63% for the Denver area between 2000 and 2020. The 2008 State Demographer projections cited by the EPA result in average annual growth of 1.76% for the Denver PMSA between 2000 and 2020.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>geographically dictated. Given the geographical distribution of water sources, the delineation between north and south is artificial since the system operates as a whole. The north will never have the capacity of the south. Increasing the size of Gross Reservoir does not balance the system. However, it does create a vehicle for Denver Water to capture water that may or may not be justified and allows Denver Water to perfect its senior claims to western slope water rights.</p> <p>POTENTIAL RISKS OF DAMS</p> <p>A "Denver Post" article dated March 20, 2009 noted that the failure of dams and levees and be the most costly and catastrophic of infrastructure failures. Fourteen years ago a study for the U.S. Army Corps of Engineers led to the conclusion that Cherry Creek Dam could be topped by an extraordinary storm following normal runoff. The Colorado General Assembly has addressed this without action. As of the 1990s, the USACE estimated that more than 120,000 people and \$30 billion worth of property were below this dam.</p> <p>The current proposal is to build a second dam 468 feet high below the current 340 foot dam. All the people and property below the dam have been at increased risk which will be greater with a higher dam. That risk will increase over time as the dam ages. All of the people living below the dam are stakeholders who are being exposed to increased risks. Yet the extensive notifications and meetings that should have been held for these stakeholders have not occurred.</p> <p>Another concern that is not addressed relates to security and terrorism. In July 2008, Denver Water closed the Dillon Dam Road indefinitely. Denver Water's Commissioner Penfield Tate said, "We understand that the closure will inconvenience motorists in Summit County. However, we have concluded that the grave danger presented by a dam failure outweighs the disruption to travelers." Dillon Dam Road is a one-mile public-access road that crosses the top of the dam from Dillon to Frisco. Denver Water owned Dillon Reservoir holds 254,000 acre-feet of water and is immediately upstream from retail areas, homes and I70. In the last seven years, Denver Water has spent more than \$10 million to enhance the safety and security of its facilities. At Dillon, changes include fencing, barriers of various types, camera surveillance and 24-hour security guards.</p> <p>The current and the proposed Gross Dam are in a steeper and more isolated area. The dam is certainly as or more vulnerable to sabotage than Dillon Dam. The renewal of the Patriot Act underscores the continued seriousness of potential destruction of infrastructure. Yet long term security is not addressed in the study. Failure to provide adequate security increases the risk to downstream owners considerably. Neither security requirements nor the potential risks for downstream stakeholders has been addressed.</p>	<p>Comment #1194-22 (ID 4347): <i>According to the brochure published by Denver Water entitled "Moffat Collection System Project: Construction & Tree Removal," Denver Water serves 1.3 million people in the city of Denver and many surrounding suburbs. According to information in Wikipedia, the 2008 population of Denver is estimated at 598,707. For convenience, if this is rounded up to 600,000, the remaining 700,000 people are served under contractual agreements with Denver. According to information from the Denver Water website, there are at least 70 contracts under 4 categories, but all receive their water from Denver Water.</i></p> <p>Response #1194-22: Denver Water serves customers within the City and County of Denver as well as a number of suburban distributors in surrounding counties (portions of Adams, Arapahoe, Douglas and Jefferson Counties) in addition to special contracts and about half of Denver Water's customers live outside the city and county of Denver. Denver Water's customers are described in Chapter 1 (Section 1.3.3). Figure 1-4 at the end of Chapter 1 shows Denver Water's CSA, which includes the City and County of Denver as well as the portions of other counties served by Denver Water. Denver Water also has a number of contracts with entities outside the CSA, which are perpetual obligations.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>Currently, Gross Dam also is licensed as a 2 MW hydroelectric project. While the FERC application indicates that increased generation capacity is not being applied for, this increases the need for adequate security.</p> <p>POTENTIAL DAMAGE TO RESERVOIR FROM FIRES</p> <p>In 2002, the Hayman fire burned 138,000 acres and 133 homes. The extent of the fire was exacerbated by a number of factors. Beginning in 1998 La Nina brought below-normal precipitation and unseasonably dry air masses to the Colorado front range. Conditions degraded year after year until fuel moisture conditions were among the driest seen in 30 years at the time of the fire. Another factor was the devastation caused by the pine bark beetle and the ips beetle which left thousands of dead trees as additional tinder.</p> <p>The loss of cover in this large water shed has caused extensive problems at Chatfield Reservoir. It will be at least 30 years before Douglas, Ponderosa and Lodgepole forests are reestablished, along with other mature groundcover. Sedimentation was and continues to be a huge problem at and near Chatfield Reservoir, a USACE owned dam and reservoir to which Denver Water has specific rights. Denver Water spent and will continue to spend multimillion dollars to control erosion and sedimentation in the Hayman Burn area near Chatfield Reservoir.</p> <p>While the drought that exacerbated wildfire conditions in 2002 does not currently exist, the extensive destruction of forests by pine bark and ips beetles is leaving hundreds of acres of dead trees. The area affected now extends to the eastern side of Continental Divide near Gross Reservoir. The potential for an extensive fire that would create the same sedimentation problem and water shed problems at Gross Reservoir has not been addressed. While silting has been addressed—a major problem for areas with a different geological and soil profile—the potential of rock and debris slides triggered by construction activities, heavy rains or unusually fast snow melt combined with tree removal has not been adequately addressed.</p> <p>Much of the area has slopes that far exceed the angle of repose. The regolith is thin and the lower layer of duff tends to pull up leaving the disturbed areas far more vulnerable to erosion when disturbed as by tree removal and vehicular activity. Should a significant rock or debris slide occur on the southerly side of Gross Reservoir, a wave capable of damaging homes on the northern side is a possibility. This has clearly been demonstrated at other U.S. and international reservoirs.</p> <p>The owners in the subdivisions surrounding Gross Reservoir are stakeholders with a very significant personal and financial risk. While general notifications have been sent, I can find no material that would alert owners to the actual geological damage potential, as well as impact on ground water and esthetics. Stakeholders require specific information about the impact of projected projects, not a one-page general overview or glitzy Denver Water brochures.</p>	<p>Comment #1194-29 (ID 4348):</p> <p><i>From the standpoint of need, a primary need is that of the people of Denver. Within Denver, any increase in population should be offset by conservation. A secondary need is the current households being served by Denver Water under contractual obligations. Expansion of service areas and people served does not constitute a need, but rather a business decision to expand a profit center and bring additional funds to Denver Water. Furthermore, nowhere in the proposal is there a requirement that Denver set out an explicit set of conservation criteria that must be strictly applied to by the city of Denver AND all subdivisions and communities that are or may be served by Denver Water. Such criteria would establish minimum conservation criteria for any new construction and recommendations and use of service fees to bring about conservation for established homes, businesses and other entities. This failure to contractually require contractor compliance with written, explicit and stringent water conservation requirements and its strict enforcement encourages a demand for more water than should be realistically required. Neither Denver Water nor the USACE has provided any studies and/or documentation to illustrate need as defined as serving only the current customers. Denver Water customers have demonstrated that they are capable of conserving water much more effectively during times of drought than they are doing today. Current usage is up 27% over the drought years as restrictions have been lifted. Much of this is used to water lawns. Clearly encouragement of replacement of high water demand lawns with xeriscaping and low moisture requirement grasses would be a long-term change to an ecologically supportable system rather than supporting high water needs applications by making more water available. A dramatic example of this is the fact that, by watering lawns a few minutes less, customers can save 2 BILLION gallons of water or approximately 3,000 acre feet of water a year.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>ENVIRONMENTAL TRAVESTY RELATED TO TREE DESTRUCTION The use of the cut trees included a number of alternatives including:</p> <ul style="list-style-type: none"> a. Selling merchantable timber for small wood products; b. Allowing people to gather firewood from central locations; c. Burning with an air curtain destructor; d. Grinding whole trees and hauling the debris to a landfill; e. Loading timber and hauling to a landfill. <p>The concept of burning these trees or adding to the already overburdened landfills is wasteful, unacceptable and as irresponsible and myopic as Denver Water's failure to replace and maintain its infrastructure. Such wanton destruction is no longer acceptable in light of today's ecological awareness.</p> <p>It is an environmental travesty to destroy approximately 30,000 trees when hundreds of remote mountain households do not have the money or ability to obtain sufficient firewood for basic household heating. Furthermore, as trees are killed by beetles, the essential balance of carbon dioxide/oxygen is already being compromised. The destruction of another 30,000 trees—considered a dire event in the rain forest—is incorporated without an analysis of the environmental impact.</p> <p>NATIONAL TREND TOWARD DAM REMOVAL RATHER THAN CONSTRUCTION The vulnerability to potential terrorism and the aftermath of destruction of water shed by fire underscores some of the vulnerabilities of dams. Denver Water and the USACE are working in the opposite direction of a growing trend to weight the environmental, economic and safety considerations and move toward dam removal rather than dam construction. While Denver Water looks to increasing the reservoir to nearly 2 ½ times its current capacity, there is a growing environmental need to maintain instream flows for environmental, aesthetic, scenic and recreational purposes. Four dams on the Snake River in the state of Washington were recently ordered breached for some of these reasons.</p> <p>Further capture of flow from the Fraser River threatens minimum stream flows and the survival of native fish and aquatic creatures. It also negatively impacts the ability of the area in proximity of the Fraser River to deal with Western Slope population increases and recreational industries. The people and businesses in Grand County are major stakeholders who, for the most part, have nothing to gain and a great deal to lose from further depletion of the Fraser River. Yet I can find that only one meeting scheduled on the Western Slope by the USACE and Denver Water for all the stakeholders who will be impacted. It appears that meeting was intended primarily for institutional stakeholders. Denver Water's concessions to the western slope in the name of cooperation are inadequate, given the long term detrimental effects that such a substantial trans-basin transfer of water will have on the Western Slope economy.</p>	<p>Response #1194-29: The purpose of the proposed Project is to provide water for Denver Water's existing customers and contractual agreements, not to allow Denver Water to expand its service area. Additionally, under the CRCA, Denver Water has agreed to a confined service area (FEIS Section 4.3). As shown in FEIS Table 1-1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A and research from the American Water Works Association was incorporated into the calculations of natural replacement savings. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water does not have the legal authority to Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted).</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>It is very telling that while Denver Water, supported by the USACE draft EIS, pursues expansion of a dam at the high cost to the Fraser River and Grand County, one-third of the budget for the USACE, the world's biggest dam builders, is devoted to river restoration.</p> <p>The Upper Colorado River Endangered Fish Recovery Program has spent over \$81,000,000 between 1989 and 2000 for instream flow protection, habitat restoration, propagation and genetics management and other related programs. A consortium of agencies, federal and state, have worked to reclaim water to protect the Colorado and its tributaries. Allowing the further depletion of the Fraser River to levels that threaten its future in extended drought periods negates the work and expenditures of this program. This consortium is a stakeholder with a huge investment in the health of western slope rivers. Yet I can find no indication that the participants were included in meetings, had detailed presentations or were invited to be active participants in the evaluation process.</p> <p>While minor concessions have been offered to the Western Slope, these in no way are adequate to off-set the degradation to the economy of Grand County and the downstream requirements of the Upper and Lower Colorado Basins. These impacts need to be addressed in far more depth and with far more balance than the current DEIS presents. In addition, the stakeholders that will be most affected—the taxpayers of Grand County and such holders of junior water rights that may lose vital water—need to be presented with in-depth information and be active participants in the evaluation process.</p> <p>BOULDER, CO IGA According to the notes for a Boulder County Commissioners' meeting, Boulder intends to use its allocation to increase stream flow rather than for residential consumption. Apparently the objective is to maintain the flow of South Boulder Creek which currently becomes dry during part of the year. Year round flow will benefit the health of South Boulder creek and the wildlife that depend on it. This may return the flow to levels that existed prior to the original construction of Gross Dam.</p> <p>Restoration of stream flow, maintenance of water temperatures and maintenance or improvement of aquatic and wildlife habitat have been major considerations in the growing trend to not only prevent construction of new dams, but breach or remove existing dams. That Boulder is looking to restore stream flow lost by construction of the original Gross Dam underscores the current trend away for dam construction.</p> <p>LONG TERM MAINTENANCE COSTS Dams and the resultant reservoirs can be more expensive to maintain than originally envisioned. Sedimentation, warming, stagnation, proliferation of unwanted aquatic life, rock and debris slides and dam safety require long term fund commitments. I could not find information on the projection of long term budget considerations</p>	<p>Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1194-4 (ID 4349): <i>The extent to which Denver Water can further expand its service area is also unclear. The difficult policy issues that Denver Water must resolve, as well as legal uncertainties regarding the city's Blue River imports are not addressed in the draft environmental impact study. The Blue River Decree governing Denver's use of its Colorado River supplies restricts these waters for use in the "metropolitan area," a requirement that can be interpreted in multiple ways. In addition, the goal of efficient use of trans-basin water is articulated in the Blue River decree, which requires Denver Water to "exercise due diligence" to reuse water imported from the Colorado River to meet its municipal needs. The DEIS does not address the issues related to restriction to metropolitan area, not does it address the projected reuse of trans-basin water. The anticipated provision of water to the City of Arvada for development near CO93 and CO72 clearly underscores the need to legally define the meaning of "metropolitan area" as envisioned within the context of the Blue River decree.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>taking into account both reasonably anticipated and worst case scenarios. Stakeholders have a right to know what the long term costs might be to maintain stream flow, temperature, etc. plus dam safety.</p> <p>ON SITE GRAVEL PITS The DEIS states: Main Quarry, staging and stock pile areas would leave 30 acres of permanent disturbance above water line. The opening statement of the USACE CoP page reads: The U.S. Army Corps of Engineers environmental programs fall under the umbrella of the Environmental Community of Practice, which provides the public with a central access to news and information about the environment. The Corps supports or manages numerous environmental initiatives including Ecosystem Restoration, Formerly Used Defense Sites, Environmental Stewardship, support to EPA Superfund and Brownfields programs, Abandoned Mine Lands, Formerly Utilized Sites Remedial Action Program, Base Realignment and Closure 2005, and Regulatory. The Corps' environmental programs support the warfighter and military installations worldwide as well as the Corps' public recreation facilities throughout the country.</p> <p>The introductory statement under the USACE environmental stewardship mandate states: The US Army Corps of Engineers is the steward of nearly 12 million acres of public lands and waters. The mission of the program is to manage and conserve natural resources consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations. The management of natural resources by utilizing a stewardship concept ensures the conservation, preservation, or protection of Corps land and water resources.</p> <p>Leaving 30 acres of gravel pit and storage land permanently disturbed is a direct contradiction to the concept of stewardship stated above especially as it relates to providing quality public outdoor recreation experience. This violates both the concept of environmental responsibility and the need to mitigate geological conditions that can contribute to silting, sedimentation and debris slides.</p> <p>FIRE AND POLICE SUPPORT The Coal Creek Canyon Area is served by the Boulder County Sheriff's Office and the Coal Creek Canyon Volunteer Fire Department. The currently allocated resources will not be adequate to deal with the traffic problems plus the potential accidents related to years of construction related accidents and injuries. If the current police and fire resources is expected to also provide protection for the increased demand for services created by Gross Dam construction, local residents who pay for these services through their taxes will be faced with slower or curtailed coverage. The DEIS does not address this safety issue and its impact on local stakeholders nor does it address providing and paying for the additional services needed.</p>	<p>Response #1194-4: The purpose of the Moffat Project is to address four problems: (1) the lack of a reliable water supply for the Moffat WTP and raw water customers upstream of the treatment plant; (2) the imbalance in Denver Water's raw water supply system; (3) a near-term shortfall in the entire supply system for meeting customer needs as growth occurs in the CSA; and (4) a need for flexibility in Denver Water's collection system. All four of these problems are addressed with one solution: the addition of 18,000 AF/yr of new firm yield available to the North System. The EIS focuses on a sufficient and reliable water supply for the CSA. Denver Water has no current plans to revise the boundaries of the CSA.</p> <p>Denver Water serves customers within the City and County of Denver as well as a number of suburban distributors in surrounding counties (portions of Adams, Arapahoe, Broomfield, Douglas, and Jefferson counties) in addition to special contracts. Denver Water's customers are described in Section 1.3.3. Figure 1-4 shows Denver Water's CSA which includes the City and County of Denver as well as the portions of other counties served by Denver Water. Denver Water also has a number of contracts with entities outside the CSA, which are perpetual obligations. Although Denver Water does not have authority over growth management or land development policy and procedures, Denver Water is still obligated to respond to increased demand in providing water to its customers within the CSA.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>TRUCK TRANSPORT VERSUS RAIL TRANSPORT OF MATERIEL</p> <p>The decision to rely on local production of some materials and use truck transport for the remainder rather than use train transport is not thoroughly discussed. The option of train transport is dismissed with a comment that a consultant reviewed the options and determined that use of train transport was not feasible. Quoting the latest Denver Water brochure: If Denver Water were to construct a new siding to unload material, it would require a tremendous amount of material to be hauled in (likely using trucks), would cost about \$20 million and would disrupt train schedules. In my opinion, the "tremendous amount of material" is an exaggeration with far less material required for a siding than for a dam. I also question the cost. Railroad construction of all types goes on regularly. Companies specialize in construction that is precise, done on schedule, and works with current operational schedules. If every siding costs \$20 million, the railroads would long since have disappeared.</p> <p>The stakeholders have the absolute right to know exactly what criteria the consultant used and how the conclusion that train transport is infeasible was reached. Since I have no basic information on which to base comments, let me present my theory.</p> <p>My research leads me to believe that the construction of a siding at the junction of Gross Dam Road and the Rio Grande railroad tracks would cost somewhere between \$250,000 and \$400,000, the cost I extrapolated for 1 mile of siding. Since Rio Grande Railroad is considered a private company, it would almost assuredly require that the cost of constructing a siding would be paid by Denver Water as a necessary construction cost. Even if the cost was \$1M, it would still be less than the damage that trucks will do to roads and the environment.</p> <p>However, use of truck hauling transfers these costs onto the taxpayers of Colorado for CO72 and onto the taxpayers of Boulder County for Gross Dam Road. I find it significant that the route chosen will take US72 to its junction with Gross Dam Road (gravel-Boulder County) rather than taking CO72 to Crescent Park Drive (paved-Jefferson County) to Gross Dam Road (gravel-Boulder County). The preferred route avoids travel on Jefferson County roads. It uses Boulder County roads exclusively and Boulder County is in negotiations with Denver Water to enhance its water resources which may or may not influence its decision to allow this excessive use.</p> <p>I live along Gross Dam Road. The road has been poorly maintained to the point where the washboarding was so severe that I could not maintain traction at 10 miles per hour. It took quite a number of letters to the Boulder County Commissioners to get any maintenance. It is a gravel road that washes and washboards very quickly. It is moderately steep with hairpin turns. Once Gross Dam Road crosses the Rio Grande Railroad tracks going north, the map shows the road as seasonal. It becomes increasingly steep with sharp curves. The road is sufficiently narrow that long vehicles cannot navigate turns while remaining in their own lanes. Clearly the</p>	<p>As part of Denver Water's obligation to reuse water under the Blue River Decree, Denver Water currently uses their reusable supplies for exchanges, augmentation, contract deliveries, and their non-potable system to the extent they can in combination with gravel pit storage. Any remaining unused reusable effluent, which is primarily available in the winter months, was considered for inclusion in reuse alternatives.</p> <p>Comment #1194-5 (ID 4350): <i>While population growth along the front range has been projected by a number of sources with different criteria, advancing the Moffat Project as an absolute necessity to meet future development is deceptive. Denver Water's choice to expand its service as a business decision does not constitute a need. Furthermore, the expansion of its customer base encourages development that is often not in the best interests of communities or the State of Colorado. Since there are no stringent requirements for conservation in many communities served under contract to Denver Water, developers only need water to create profitable developments. Meanwhile this urban sprawl is eagerly promoted by the communities who look to enhanced real estate tax bases and by Denver Water looking for additional revenues in the form of tap fees, etc. Clearly the developers and the communities that approve the developments are stakeholders with minimal obligations.</i></p>


Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>constant need to use both lanes of the road will pose a significant hazard to oncoming traffic.</p> <p>Over the years, a number of vehicles have slid off the hairpin in all seasons. Heavy traffic has increased over the past few years. Trucks going north are braking heavily to negotiate the hairpin turn. The sound of this braking is clearly audible for a long distance. However, trucks coming from the north are approaching the hairpin on an uphill grade. The need to negotiate the hairpin at extremely low speeds not only is clearly audible, but I can clearly feel the subauditory vibrations. The vibrational impact on ground water supplies and wells created by the vibrational impact of 40 to 70 trucks per day plus the heavy equipment and blasting associated with heavy construction has not been addressed.</p> <p>Nowhere in the DEIS can I find a seismic engineering study even though the impact on wells and ground well sources of this type of vibration is well known. The failure to include this type of engineering study results in the DEIS being silent as to the liability of Denver Water for damage to ground water supplies caused by its activities.</p> <p>NOISE The DEIS states that at distances of 50 feet, noise levels diminish rapidly. That statement, without the validation of the circumstances under which it applies, is totally misleading and scientifically unsupported. Evidently no studies of the area in question have been done. I have to drive two miles to get to COT2, yet I can clearly hear the sirens of emergency vehicles on COT2. Sounds carry for miles in this area, and reverberate through the valleys. Heavy construction sounds from the far side of Cross Reservoir 8 miles distant are easily heard. Planes at 10,000 to 15,000 feet are also easily heard. Trains which are about one mile distant can clearly be heard. Clearly, noise pollution needs to be scientifically evaluated in the area. The residents of rural areas choose to live a more isolated life because they do not want the noise pollution of cities. The DEIS does not deal with the science, the reality and the environmental aspects of the noise pollution imposed by heavy traffic and heavy construction.</p> <p>ROAD MAINTENANCE The measures proposed to deal with dust and road condition are general and vague. County road standards are designed for specific traffic considerations. Gross Dam Road was not designed or engineered for years of extremely heavy truck traffic. Exhaust and vibration from vehicles has had a negative impact on vegetation along COT2. The relatively light use of Gross Dam Road has greatly lessened this impact. However, the intense use by Denver Water will have the same environmentally negative effects along Gross Dam Road as are seen along COT2. Furthermore, much of the road to the Reservoir is through publicly owned land, so yet another</p>	<p>Response #1194-5: Please see the response to Comment ID 4349.</p> <p>Denver Water serves customers within the City and County of Denver as well as a number of suburban distributors in surrounding counties (portions of Adams, Arapahoe, Broomfield, Douglas, and Jefferson counties) in addition to special contracts. Denver Water's customers are described in Section 1.3.3. Figure 1-4 shows Denver Water's CSA this includes the City and County of Denver as well as the portions of other counties served by Denver Water. Denver Water also has a number of contracts with entities outside the CSA, which are perpetual obligations. Although Denver Water does not have authority over growth management or land development policy and procedures, Denver Water is still obligated to respond to increased demand in providing water to its customers within the CSA.</p> <p>Water conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>expensive environmental degradation will be imposed not only on local homeowners, but also on the citizens of Colorado that own and pay for this land.</p> <p>HIGHWAYS COLORADO 93 AND 72 Both of these highways are two-lane highways with very few pullouts. The traffic on both has grown and at certain times of the day, is quite congested. The addition of 40 to 70 semitrailers and large dump trucks, plus the cars of work crews will further exacerbate traffic conditions that are already stressful. CO72 is the only direct highway to the metropolitan area, so alternative routes are not a possibility. A train derailment at the trestle that crosses CO72 three miles west of CO93 caused the road to be closed for approximately 8 hours. The only alternatives were to drive to Boulder and come up Flagstaff Road to Gross Dam Road or to go south to Golden Gate Canyon, then to CO119 and north to CO72. Both alternatives are extremely long and over steep and curving roads.</p> <p>The majority of households have at least one member who commutes to the metropolitan Denver area to work. The added cost of fuel while crawling along behind an endless string of heavy trucks plus the wasted time are a tremendous inconvenience and cash drain for local residents. Yet the DEIS considers this as having a "negligible impact." Clearly the best interest of this group of stakeholders has not only NOT been considered, but has been trivialized.</p> <p>The impact of this truck traffic plus heavy construction for a period estimated to take 4 to 6 years will have a negative impact on property values. Property values have already been heavily impacted by the general economy and job layoffs. This will impose yet another financial blow to Coal Creek Canyon residents. Yet, the residents of Coal Creek Canyon will reap absolutely no benefits from all of this detrimental activity. It may well have the added negative effect of causing real estate tax increases because of the increased costs of road maintenance and fire and police protection.</p> <p>ALTERNATIVES Of the five alternatives selected by the USACE, only one—the mandatory "No Action"—does NOT include the expansion of Gross Dam and Reservoir. In my opinion, the framing of the original problem plus this "only alternative—pick your flavor" conclusion raises serious questions about the impartiality of the parties involved. The failure to evaluate Western Slope impacts raises further questions. In short, it is my opinion based on my personal research that the original stated but unsupported need and the final choices were front end loaded to assure a specific outcome—justification for perfecting Denver Water's Colorado River Upper Basin water claims and assuring a basin to store its trans-basin water exports. In my opinion, this is to assure Denver Water's ability to fuel continued expansion of communities it currently or plans to serve. In my opinion, this project was designed to expand a specific profit center for Denver Water since need by current users has not been demonstrated. I further suggest that many long and short term costs and</p>	<p>Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in Table 1-2 of the DEIS and FEIS. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water has been encouraging their customers to use 22% less water than they were consuming before the 2002 drought, by 2016. To date, Denver Water customers are using 18% less water than they were before the 2002 drought.</p> <p>Comment #1194-27 (ID 4351): <i>Meanwhile the City of Denver is itself setting an extremely poor example by neglecting its infrastructure. On February 3,2010, a water main broke not once but twice in North Denver. According to a story from CBS-4 News, in 2009 Denver Water fixed more than 600 broken pipes. The article cites Stacy Chesney with Denver Water saying that breaks happen almost every day in the city. The article notes that last year Denver Water lost 50 million gallons of water to burst pipes. However, instead of replacing infrastructure, Denver Water is diverting funding and borrowing capacity to increase its water holdings and its profit base through expansion. Timely maintenance, replacement and modernization of water infrastructure is not addressed in terms of contract requirements or conservation of water.</i></p> <p>Response #1194-27: Denver Water operates almost 3,000 miles of pipes in the treated water system and has programs to monitor and maintain the distribution piping, including leak detection, corrosion monitoring, valve testing, water quality testing, pressure monitoring and fire flow testing. Denver Water's leak detection program is a crucial component of conservation and system maintenance.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>studies were not evaluated or included or were transferred to governmental agencies supported by taxpayers. Further, it is my opinion that the three meetings held for stakeholders were specifically intended for institutional stakeholders. However, the majority of stakeholders—the taxpayers and citizens that will be most heavily impacted—had virtually no outreach programs and were not given the in-depth information to which they are rightfully entitled by law.</p> <p style="text-align: right;">Cordially,  Erika Winkelhake</p> <p>Cc: Federal Energy Regulatory Commission (FERC) c/o Denver Water Attn: Brian Gogas Mail Code 418 1600 W. 12th Ave. Denver, CO 80204</p> <p>Secretary of the Interior Ken Salazar U.S. Department of the Interior 1849 C. Street N.W. Washington, DC 20240</p> <p>Senator Michael Bennet 2300 15th Street, Suite 430 Denver, CO 80202</p> <p>Senator Mark Udall 999 18th Street Suite 1525, North Tower Denver, CO 80202</p> <p>Representative Jared Polis 4770 Baseline Rd., #220 Boulder, CO 80303</p> <p>Representative Clair Levy 200 E. Colfax Ave. Denver, CO 80203</p> <p>Senator Dan Gibbs 200 E. Colfax Ave. Denver, CO 80203</p> <p style="text-align: center;">13</p>	<p>Year-round leak programs have been in place since 1981. The current leak detection program includes system loggers and mobile sonic detection devices, which are used to survey the system and to pinpoint leaks. Denver Water has a team dedicated to leak detection tasks, with the goal of covering all pipes every 5 years. All leaks detected are repaired. Denver Water's distribution system leak and break rate is less than half the national average. Three programs for pipe renewal have been operating since at least 1960; the main replacement program, the pipe rehabilitation (cement mortar lining) program, and the system improvements program. Collectively, these programs are geared to reducing leak losses, improving fire flow and water quality, minimizing interruptions, and maintaining high service standards. In 2009, the Denver Water Board approved major increases on the replacement and rehabilitation programs, and expenditures are expected to double over the next ten years.</p> <p>Comment #1194-7 (ID 4352): <i>URBAN SPRAWL The information I gleaned from the Denver Water website if that it currently serves at least 70 subdivisions and communities. Many are looking to expand. The City of Arvada has contracted with Denver Water to receive 3,000 acre feet from the expanded reservoir. Arvada has been aggressively seeking expansion and supporting the efforts of developers. It has chosen to incorporate areas in an irregular, gerrymandered manner for the benefit of developers and against the wishes of local rural residents. The DEIS does not address this use of water which encourages urban sprawl, nor does it differentiate between water that is needed for the current Denver and contractual users versus anticipated users where expansion is predicated on the availability of additional water resources.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
	<p>Lt. Gen. Robert L. VanAntwerp Headquarters, US Army Corps of Engineers 441 G. Street, NW Washington, DC 20314-1000</p> <p>Boulder County Commissioners PO Box 471 Boulder, Colorado 80306</p> <p>Federal Energy Regulatory Commission Attn: Sec. Kimberly Bose 888 First Street NE Washington, DC 20426</p>	<p>Response #1194-7: Denver Water serves customers within the City and County of Denver, a number of suburban distributors and provides water through a small number of special contracts, as described in Chapter 1 (Section 1.3.3). Denver Water does not have any authority over the growth and development policies of these customers; development and land use decisions (type, pace and location of growth) are made at the local level by City Councils and other entities. However, Denver Water is legally obligated to provide water service to these users and must make planning decisions based on a reasonable estimate of future need, as supported by the water demand forecasting models. DEIS Section 4.14 Land Use concludes that there is no substantive causal relationship between population growth and the development of water, or vice versa.</p> <p>Comment #1194-8 (ID 4353): <i>STANDARDIZATION OF UNITS OF MEASUREMENT The usage amounts given by Denver Water are in gallons per household, while all other criteria are given in persons or acre feet without any correlation. The USACE and Denver Water have an obligation to provide information that can be intelligently evaluated based on a uniform measurement standard. This requires that the usage statistics be presented in the same units of measure and then referenced against other units of measure that may be useful in evaluation. It is not the responsibility of the stakeholders to try to ferret out information. It is incumbent on the USACE.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1194-8: AF measurements are commonly used throughout the EIS when discussing water development alternatives; water demands and supplies; and/ or resource impacts. Certain topics related to delivered, treated water require the use of a smaller scale of measurement and gallons per person or gallons per household measurements are cited where appropriate. These differences in units are common utility planning practice. The glossary defines each term. One AF is equivalent to 325,851 gallons, as defined in the glossary.</p> <p>Comment #1194-25 (ID 4354): <i>IMBALANCE IN WATER COLLECTION SYSTEM</i> <i>Denver Water has stated that another reason for the Moffat Project is to correct a serious imbalance in its water collection system, in which about 80 percent of the supply exists on the south side of the system. Denver Water currently owns or has access to water from the following reservoir and sources: 1. Antero Reservoir: Near Fairplay, CO 19,881 acre feet 2. Dillon Reservoir: Near Dillon, CO 257,304 acre feet 3. Cheesman Reservoir: Near Pine Junction, CO 79,064 acre feet 4. Eleven Mile Reservoir: Near Fairplay, CO 97,779 acre feet 5. Gross Reservoir: Near Boulder, CO 41,811 acre feet 6. Williams Fork Reservoir: Near Parshall, CO 96,822 acre feet 7. Waterton Canyon/Strontia Springs Reservoir: South of Chatfield Dam 7,863 acre feet 8. Highline Canal: Access to irrigation water. 9. Chatfield Reservoir: owned and operated by the USACE Denver Water can use about 27,400 acre-feet of space which it fills using its own water rights. The stated "imbalance" between Denver Water's north and south systems is based on the relatively small storage capacity of Gross Reservoir compared to the whole south system. The majority of the water held in the South System is garnered from the South Platte water shed. Therefore, the emphasis on more south</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>reservoirs is geographically dictated. Given the geographical distribution of water sources, the delineation between north and south is artificial since the system operates as a whole. The north will never have the capacity of the south. Increasing the size of Gross Reservoir does not balance the system. However, it does create a vehicle for Denver Water to capture water that mayor may not be justified and allows Denver Water to perfect its senior claims to western slope water rights.</i></p> <p>Response #1194-25: Denver Water's North and South raw water systems that provide water to the treatment plants are not connected. During periods of high demand, the raw water being provided to the Moffat WTP simply runs out because there is not a sufficient amount placed in storage. The enlargement of Gross Reservoir increases the reliability of the North end of Denver Water's system by providing more storage during dry years and system emergencies. Currently, Denver Water is at risk of running out of water in a single dry year. This was highlighted by the recent 2002 drought. Refer to DEIS Section 1.4.4.1 Raw Water Availability to the Moffat WTP (System Reliability) for more information.</p> <p>Denver Water's Collection System is vulnerable to natural and manmade disasters and system failures because approximately 90 % of available reservoir storage and 80 % of available water supplies rely on the unimpeded operation of Denver's South System. Loss of operation of portions of the South System could require more water from the Moffat Collection System to meet customer's water demands. If an interconnect was located downstream of several of Denver Water's South System facilities, including Roberts Tunnel, Dillon Reservoir, Eleven Mile Canyon Reservoir, Cheesman Reservoir, Antero Reservoir and Strontia Springs Reservoir, Denver</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Water's system would remain vulnerable. Loss of operation to these South Platte River facilities could affect the ability to deliver water to a downstream interconnect such as Conduit X. While an interconnect may help reduce the imbalance of the storage and water supply between the North and South Systems, it does not address the vulnerability and reduced system reliability created by that imbalance.</p> <p>The enlargement of Gross Reservoir would decrease the vulnerability and increase the reliability of Denver Water's entire collection system during system emergencies.</p> <p>Comment #1194-11 (ID 4355): <i>POTENTIAL RISKS OF DAMS A "Denver Post" article dated March 20, 2009 noted that the failure of dams and levees and be the most costly and catastrophic of infrastructure failures. Fourteen years ago a study for the U.S. Army Corps of Engineers led to the conclusion that Cherry Creek Dam could be topped by an extraordinary storm following normal runoff. The Colorado General Assembly has addressed this without action. As of the 1990s, the USACE estimated that more than 120,000 people and \$30 billion worth of property were below this dam. The current proposal is to build a second dam 465 feet high below the current 340 foot dam. All the people and property below the dam have been at increased risk which will be greater with a higher dam. That risk will increase over time as the dam ages. All of the people living below the dam are stakeholders who are being exposed to increased risks. Yet the extensive notifications and meetings that should have been held for these stakeholders have not occurred.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1194-11: Denver Water indicated it and other groups have worked over the years to improve the aquatic resources in South Boulder Creek. A current agreement between Denver Water and the City of Boulder, which allows Boulder to store water in Gross Reservoir for environmental purposes, has never been used because the timing of available reservoir space and Boulder's use of priority water rights have not coincided.</p> <p>As part of mitigation proposed for the Moffat Project, Denver Water and the cities of Boulder and Lafayette worked together to develop dedicated space for environmental purposes (a 5,000 AF permanent, year-round Environmental Pool). This additional storage would be filled with water provided by the cities of Boulder and Lafayette, primarily for augmenting low flows in the section of South Boulder Creek from the South Boulder Diversion Dam to the confluence of Boulder Creek. Although Denver Water has a 7 cfs (or the natural flow) bypass requirement downstream of the diversion dam. However, the 7 cfs bypass by Denver Water can be (and is) diverted by other downstream water users. The water released from the Environmental Pool, however, would be protected from diversions by other water rights because it is a delivery of water to a downstream water user. Refer to Appendix M of the DEIS for a discussion of the Environmental Pool.</p> <p>Routine Federal- and State-imposed dam safety inspections are performed on the existing Gross Dam. Similarly, dam safety inspections and analyses would be conducted for an enlarged Gross Reservoir during final design. Where appropriate, general safety features were incorporated into the conceptual dam designs used for the EIS impact analysis. For example, Section 2.3.2.1 states: "In</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>order to satisfy current dam safety criteria, the dam raise would necessitate an increased spillway capacity, improved dam safety condition, and would require the construction of a service spillway. The spillway could be located in the dam crest, a topographic saddle south of the dam or along the right abutment of the dam or some combination (Figure 2-3)."</p> <p>Denver Water would design the dam enlargement in accordance with the Colorado Rules and Regulations for Dam Safety and Dam Construction and current engineering practices, and it would be subject to a series of design reviews by Denver Water, the Colorado SEO, the FERC, and an independent review panel made up of expert dam engineers approved by FERC. FERC and the SEO conduct annual inspections of the existing Gross Dam and FERC requires that an Independent Safety Inspection be conducted by an outside third-party consultant every five years. Denver Water's Dam Safety staff also conducts a formal inspection of Gross dam every year, and the Denver Water Engineering Manager of Dam Safety conducts periodic spot inspections.</p> <p>Additionally, Denver Water would update its current Emergency Action Plan (EAP), required by FERC and the SEO, if Gross Reservoir is enlarged, to minimize the risk of loss of life and property damage when potential emergency conditions threaten the structural integrity of a dam. The EAP describes procedures to:</p> <ul style="list-style-type: none"> • Identify unusual and unlikely conditions that may endanger the dam • Initiate remedial actions to prevent or minimize the downstream impacts of a dam failure

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<ul style="list-style-type: none"> Initiate emergency actions to warn downstream residents of impending or actual failure of the dam. <p>The EAP provides a detailed description of the communications protocol such as who needs to be notified and what areas are likely to be flooded, among other details, in the highly unlikely event of a dam failure. Plan participants include the Boulder County Office of Emergency Management, Boulder County Sheriff, Boulder police and fire departments, Lafayette police department, Colorado State Police, State of Colorado Division of Emergency Management, National Weather Service, and many others. This plan is exercised yearly and a formal tabletop and functional exercise is conducted with downstream emergency personnel every five years.</p> <p>Denver Water has indicated a willingness to hold public meetings, upon request, to update stakeholder groups on design, construction, or mitigation aspects of the proposed Project.</p> <p>Comment #1194-28 (ID 4356): <i>Another concern that is not addressed relates to security and terrorism. In July 2008, Denver Water closed the Dillon Dam Road indefinitely. Denver Water's Commissioner Penfield Tate said, "We understand that the closure will inconvenience motorists in Summit County. However, we have concluded that the grave danger presented by a dam failure outweighs the disruption to travelers." Dillon Dam Road is a one-mile public-access road that crosses the top of the dam from Dillon to Frisco. Denver Water owned Dillon Reservoir holds 254,000 acre-feet of water and is immediately upstream from retail areas, homes and I70. In the last seven years, Denver Water has spent more than \$10 million to enhance the safety and security of its facilities. At Dillon, changes include fencing, barriers of various</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>types, camera surveillance and 24-hour security guards. The current and the proposed Gross Dam are in a steeper and more isolated area. The dam is certainly as or more vulnerable to sabotage than Dillon Dam. The renewal of the Patriot Act underscores the continued seriousness of potential destruction of infrastructure. Yet long term security is not addressed in the study. Failure to provide adequate security increases the risk to downstream owners considerably. Neither security requirements nor the potential risks for downstream stakeholders has been addressed. Currently, Gross Dam also is licensed as a 2 MW" hydroelectric project. While the FERC application indicates that increased generation capacity is not being applied for, this increases the need for adequate security.</i></p> <p>Response #1194-28: Denver Water has been and is currently engaged in efforts to identify and protect against actual or potential threats to all of its critical infrastructure and key resources. Denver Water has implemented security program initiatives, which include vulnerability assessments of its facilities, followed by implementation of recommended physical security improvements. As well, Denver Water's support for these programs includes an appropriate and significant level of recurring funding. In addition, Denver Water is also in direct contact with and regularly participates with local, State, and Federal agencies in training and exercises to prepare a response to adverse actions.</p> <p>Comment #1194-12 (ID 4357): <i>POTENTIAL DAMAGE TO RESERVOIR FROM FIRES In 2002, the Hayman fire burned 138,000 acres and 133 homes. The extent of the fire was exacerbated by a number of factors. Beginning in 1998 La Nina brought below-normal precipitation and unseasonably dry air masses to the Colorado</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>front range. Conditions degraded year after year until fuel moisture conditions were among the driest seen in 30 years at the time of the fire. Another factor was the devastation caused by the pine bark beetle and the ips beetle which left thousands of dead trees as additional tinder. The loss of cover in this large water shed has caused extensive problems at Chatfield Reservoir. It will be at least 30 years before Douglas, Ponderosa and Lodgepole forests are reestablished, along with other mature groundcover. Sedimentation was and continues to be a huge problem at and near Chatfield Reservoir, a USACE owned dam and reservoir to which Denver Water has specific rights. Denver Water spent and will continue to spend multimillion dollars to control erosion and sedimentation in the Hayman Burn area near Chatfield Reservoir. While the drought that exacerbated wildfire conditions in 2002 does not currently exist, the extensive destruction of forests by pine bark and ips beetles is leaving hundreds of acres of dead trees. The area affected now extends to the eastern side of Continental Divide near Gross Reservoir. The potential for an extensive fire that would create the same sedimentation problem and water shed problems at Gross Reservoir has not been addressed. While silting has been addressed-a major problem for areas with a different geological and soil profile-the potential of rock and debris slides triggered by construction activities, heavy rains or unusually fast snow melt combined with tree removal has not been adequately addressed. Much of the area has slopes that far exceed the angle of repose. The regolith is thin and the lower layer of duff tends to pull up leaving the disturbed areas far more vulnerable to erosion when disturbed as by tree removal and vehicular activity. Should a significant rock or debris slide occur on the southerly side of Gross Reservoir, a wave capable of damaging homes on the northern side is a possibility. This has clearly been demonstrated at other U.S. and</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>international reservoirs. The owners in the subdivisions surrounding Gross Reservoir are stakeholders with a very significant personal and financial risk. While general notifications have been sent, I can find no material that would alert owners to the actual geological damage potential, as well as impact on ground water and esthetics. Stakeholders require specific information about the impact of projected projects, not a one-page general overview or glitzy Denver Water brochures.</i></p> <p>Response #1194-12: Denver Water has indicated a willingness to hold public meetings, upon request, to update stakeholder groups on design, construction, or mitigation aspects of the proposed Project. Denver Water is also required by the SEO and FERC to prepare and implement an EAP to address emergency conditions that threaten the structural integrity of the dam. The EAP has a detailed communications protocol to notify emergency response officials and area residents.</p> <p>Denver Water has a Forest Management Plan as a requirement of the existing Gross Reservoir FERC license. Denver Water contracts with the Colorado State Forest Service to implement the Forest Management Plan on Denver Water's property around Gross Reservoir and to coordinate with the USFS regarding forest treatments on Denver Water's lands. Denver Water also has entered into a Memorandum of Understanding with the USFS to conduct forest treatments to proactively improve the health of the forests and watersheds in critical areas. This effort is called the Forest-to-Faucets Partnership. These forest treatment areas would be located around the Gross Reservoir watershed, in addition to other watersheds in Denver Water's Water Collection System. The goal of the Partnership is to conduct forest treatments over a 5-</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>year period on 38,000 acres of USFS land within Denver Water's Collection System. The estimated cost is \$33 million with Denver Water contributing half of the money. Denver Water also enters into an Annual Fire Operating Plan with the Colorado State Forest Service to coordinate with the appropriate agencies were a fire to occur on Denver Water property. Appendix G of the FEIS includes a description of Denver Water's forest treatment practices and ongoing cooperative efforts.</p> <p>Rockslides and other geological risks would be analyzed along with other geotechnical issues during the final design and construction phases of the Project. Erosion control and protection is part of Denver Water's design and operation at Gross Reservoir, and, although Erosion cannot be fully prevented, it can be mitigated through strategic placement of sediment ponds; slope stabilization, and other BMPs.</p> <p>Comment #1194-13 (ID 4358): <i>ENVIRONMENTAL TRAVISTY RELATED TO TREE DESTRUCTION The use of the cut trees included a number of alternatives including: a. Selling merchantable timber for small wood products; b. Allowing people to gather firewood from central locations; c. Burning with an air curtain destructor; d. Grinding whole trees and hauling the debris to a landfill; e. Loading timber and hauling to a landfill. The concept of burning these trees or adding to the already overburdened landfills is wasteful, unacceptable and as irresponsible and myopic as Denver Water's failure to replace and maintain its infrastructure. Such wanton destruction is no longer acceptable in light of today's ecological awareness. It is an environmental travesty to destroy approximately 30,000 trees when hundreds of remote mountain households do not have the money or ability to obtain sufficient firewood for basic</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>household heating. Furthermore, as trees are killed by beetles, the essential balance of carbon dioxide/oxygen is already being compromised. The destruction of another 30,000 trees--considered a dire event in the rain forest-is incorporated without an analysis of the environmental impact.</i></p> <p>Response #1194-13: Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p> <p>GHG emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>Comment #1194-2 (ID 4359): <i>NATIONAL TREND TOWARD DAM REMOVAL RATHER THAN CONSTRUCTION The vulnerability to potential terrorism and the aftermath of destruction of water shed by fire underscores some of the vulnerabilities of dams. Denver Water and the USACE are working in the opposite direction of a growing trend to weight the environmental, economic and safety considerations and move</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>toward dam removal rather than dam construction. While Denver Water looks to increasing the reservoir to nearly 2½ times its current capacity, there is a growing environmental need to maintain instream flows for environmental, aesthetic, scenic and recreational purposes. Four dams on the Snake River in the state of Washington were recently ordered breached for some of these reasons. Further capture of flow from the Fraser River threatens minimum stream flows and the survival of native fish and aquatic creatures. It also negatively impacts the ability of the area in proximity of the Frazer River to deal with Western Slope population increases and recreational industries. The people and businesses in Grand County are major stakeholders who, for the most part, have nothing to gain and a great deal to lose from further depletion of the Fraser River. Yet I can find that only one meeting scheduled on the Western Slope by the USACE and Denver Water for all the stakeholders who will be impacted. It appears that meeting was intended primarily for institutional stakeholders. Denver Water's concessions to the western slope in the name of cooperation are inadequate, given the long term detrimental effects that such a substantial trans-basin transfer of water will have on the Western Slope economy.</i></p> <p>Response #1194-2: The Corps maintains a Project mailing list comprised of the general public (i.e., citizens, private companies, NGOs, etc.) that attended the scoping meetings as well as current contacts at the appropriate local, State, and Federal agencies. Informational post cards describing the public hearings, including the meeting in Boulder, were distributed to members of the Project mailing list on October 28, 2009. Information on the public hearings was also distributed as display ads in the following local newspapers:</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<ul style="list-style-type: none"> • Denver Post, 10/30/09 and 11/30/09 • Sky-Hi Daily News, 10/30/09 and 11/30/09 • Mountain Messenger (Coal Creek Canyon), November Issue • Highlander Monthly, November Issue • Boulder Daily Camera, 10/30/09 and 11/30/09 <p>Public hearing information was also displayed on the Corps Project website at https://www.nwo.usace.army.mil/html/od-tl/eis/moffat-eis.html and Denver Water's website at http://www.denverwater.org/SupplyPlanning/Planning/FutureWaterSupply/WaterSupplyProjects/Moffat/.</p> <p>The Corps held four public hearings (two on the West Slope) for the Moffat Project as part of the NEPA process:</p> <ul style="list-style-type: none"> • December 1, 2009 - Boulder Country Club, Boulder, Colorado • December 2, 2009 – The Inn at Silver Creek, Granby, Colorado • December 3, 2009 – Double Tree Hotel, Denver, Colorado • January 7, 2010 – Beaver Run Conference Center, Breckenridge, Colorado <p>An Open House was held at these events from 4:00 – 6:00 p.m. The Corps was explicitly available during the Open Houses to answer the public's questions on the Moffat Project.</p> <p>Comment #1194-3 (ID 4360): <i>It is very telling that while Denver Water, supported by the USACE draft EIS, pursues expansion of a dam at the high cost to the Fraser River and Grand County, one-third of the budget for the USACE, the world's biggest dam builders, is devoted to river restoration. The Upper Colorado River Endangered</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>Fish Recovery Program has spent over \$81,000,000 between 1989 and 2000 for instream flow protection, habitat restoration, propagation and genetics management and other related programs. A consortium of agencies, federal and state, have worked to reclaim water to protect the Colorado and its tributaries. Allowing the further depletion of the Fraser River to levels that threaten its future in extended drought periods negates the work and expenditures of this program. This consortium is a stakeholder with a huge investment in the health of western slope rivers. Yet I can find no indication that the participants were included in meetings, had detailed presentations or were invited to be active participants in the evaluation process.</i></p> <p>Response #1194-3: Operation of the Moffat Project would cause depletions to the upper Colorado River, which would indirectly affect four endangered fish species: bonytail chub, Colorado pikeminnow, humpback chub and razorback sucker. Under the ESA, the Corps initiated Formal Section 7 Consultation with the USFWS regarding the depletion effects on these Federally-listed species. The USFWS issued a BO for the Moffat Project in July 2009 (see FEIS Appendix G-2) and determined that the proposed depletions associated with the Moffat Project would be covered under Denver Water's Recovery Agreement as new depletions. Denver Water signed a Recovery Agreement with the USFWS in 2000, which governs consultations under Section 7 of the ESA with respect to depletions caused by water users. New depletions of more than 100 AF/yr are assessed a one-time fee to help support the Upper Colorado River Endangered Fish Recovery Program. The following is an excerpt from the BO that addresses the Recovery Implementation Program for Endangered Fish in the Upper Colorado River Basin. The Corps submitted a request for</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>reinitiation of consultation on August 14, 2012, in response to a February 16, 2010 letter from USFWS commenting on the DEIS. After some discussion, USFWS indicated that it would provide two BOs for the Project, one addressing depletions to the Platte and Colorado rivers and additional information on Preble's meadow jumping mouse, and the second addressing impacts to greenback cutthroat trout in the Fraser River and Williams Fork River systems. The Corps submitted a Revised BA for depletions and Preble's on August 14, 2013. A Final BO from the USFWS was issued on December 6, 2013 that replaced the July 31, 2009 BO for depletions and Preble's. The Corps is preparing and will submit a Supplemental BA for greenback cutthroat trout. Section 7 consultation will be completed prior to issuance of the Record of Decision</p> <p>Comment #1194-1 (ID 4361): <i>While minor concessions have been offered to the Western Slope, these in no way are adequate to offset the degradation to the economy of Grand County and the downstream requirements of the Upper and Lower Colorado Basins. These impacts need to be addressed in far more depth and with far more balance than the current DEIS presents. In addition, the stakeholders that will be most affected-the taxpayers of Grand County and such holders of junior water rights that may lose vital water-need to be presented with in-depth information and be active participants in the evaluation process.</i></p> <p>Response #1194-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA, including an appropriate Project effects analysis and compensatory mitigation.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Comment #1194-9 (ID 4362): <i>BOULDER, CO IGA According to the notes for a Boulder County Commissioners' meeting, Boulder intends to use its allocation to increase stream flow rather than for residential consumption. Apparently the objective is to maintain the flow of South Boulder Creek which currently becomes dry during part of the year. Year round flow will benefit the health of South Boulder creek and the wildlife that depend on it. This may return the flow to levels that existed prior to the original construction of Gross Dam. Restoration of stream flow, maintenance of water temperatures and maintenance or improvement of aquatic and wildlife habitat have been major considerations in the growing trend to not only prevent construction of new dams, but breach or remove existing dams. That Boulder is looking to restore stream flow lost by construction of the original Gross Dam underscores the current trend away for dam construction.</i></p> <p>Response #1194-9: The Corps notes the comment.</p> <p>Comment #1194-24 (ID 4363): <i>LONG TERM MAINTENANCE COSTS Dams and the resultant reservoirs can be more expensive to maintain than originally envisioned. Sedimentation, warming, stagnation, proliferation of unwanted aquatic life, rock and debris slides and dam safety require long term fund commitments. I could not find information on the projection of long term budget considerations taking into account both reasonably anticipated and worst case scenarios. Stakeholders have a right to know what the long term costs might be to maintain stream flow, temperature, etc. plus dam safety.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1194-24: Denver Water currently operates and maintains many large reservoirs and dams in various locations in Colorado and has decade's long experience in estimating maintenance costs for these facilities. Estimates of annual operations and maintenance costs for the various facilities are included for each alternative and these can be found in Chapter 2, Section 2.9.</p> <p>Comment #1194-20 (ID 4364): <i>ON SITE GRAVEL PITS The DEIS states: Main Quarry, staging and stock pile areas would leave 30 acres of permanent disturbance above water line. The opening statement of the USACE CoP page reads: The U.S. Army Corps of Engineers environmental programs fall under the umbrella of the Environmental Community of Practice, which provides the public with a central access to news and information about the environment. The Corps supports or manages numerous environmental initiatives including Ecosystem Restoration, Formerly Used Defense Sites, Environmental Stewardship, support to EPA Superfund and Brownfields programs, Abandoned Mine Lands, Formerly Utilized Sites Remedial Action Program, Base Realignment and Closure 2005, and Regulatory. The Corps' environmental programs support the warfighter and military installations worldwide as well as the Corps' public recreation facilities throughout the country. The introductory statement under the USACE environmental stewardship mandate states: The US Army Corps of Engineers is the steward of nearly 12 million acres of public lands and waters. The mission of the program is to manage and conserve natural resources consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations. The management of natural resources by utilizing a stewardship concept</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>ensures the conservation, preservation, or protection of Corps land and water resources. Leaving 30 acres of gravel pit and storage land permanently disturbed is a direct contradiction to the concept of stewardship stated above especially as it relates to providing quality public outdoor recreation experience. This violates both the concept of environmental responsibility and the need to mitigate geological conditions that can contribute to silting, sedimentation and debris slides.</i></p> <p>Response #1194-20: An additional mitigation measure has been added to FEIS Section 5.17.7 to address reclamation of the quarry site. The proposed quarry site would be primarily located on USFS land and therefore Denver Water would work closely with the USFS to ensure appropriate reclamation of this site and any alternative quarry sites.</p> <p>Comment #1194-15 (ID 4365): <i>FIRE AND POLICE SUPPORT The Coal Creek Canyon Area is served by the Boulder County Sheriff's Office and the Coal Creek Canyon Volunteer Fire Department. The currently allocated resources will not be adequate to deal with the traffic problems plus the potential accidents related to years of construction related accidents and injuries. If the current police and fire resources is expected to also provide protection for the increased demand for services created by Gross Dam construction, local residents who pay for these services through their taxes will be faced with slower or curtailed coverage. The DEIS does not address this safety issue and its impact on local stakeholders nor does it address providing and paying for the additional services needed.</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Response #1194-15: Emergency vehicles would have access to the same response routes during construction that currently exist. If an emergency vehicle needed access to closed road, access would be granted. Additionally, construction contractors would pull over to allow emergency response vehicles to pass as needed.</p> <p>Denver Water and/or its contractor would notify the Fire Department and the Boulder County Sheriff's Office of peak construction timeframes.</p> <p>Comment #1194-16 (ID 4366): <i>TRUCK TRANSPORT VERSUS RAIL TRANSPORT OF MATERIEL The decision to rely on local production of some materials and use truck transport for the remainder rather than use train transport is not thoroughly discussed. The option of train transport is dismissed with a comment that a consultant reviewed the options and determined that use of train transport was not feasible. Quoting the latest Denver Water brochure: If Denver Water were to construct a new siding to unload material, it would require a tremendous amount of material to be hauled in (likely using trucks), would cost about \$20 million and would disrupt train schedules. In my opinion, the "tremendous amount of material" is an exaggeration with far less material required for a siding than for a dam. I also question the cost. Railroad construction of all types goes on regularly. Companies specialize in construction that is precise, done on schedule, and works with current operational schedules. If every siding costs \$20 million, the railroads would long since have disappeared. The stakeholders have the absolute right to know exactly what criteria the consultant used and how the conclusion that train transport is infeasible was reached. Since I have no basic information on which to base comments, let me present my theory. My research leads me to believe</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>that the construction of a siding at the junction of Gross Dam Road and the Rio Grande railroad tracks would cost somewhere between \$250,000 and \$400,000, the cost I extrapolated for 1 mile of siding. Since Rio Grande Railroad is considered a private company, it would almost assuredly require that the cost of constructing a siding would be paid by Denver Water as a necessary construction cost. Even if the cost was \$1M, it would still be less than the damage that trucks will do to roads and the environment. However, use of truck hauling transfers these costs onto the taxpayers of Colorado for CO72 and onto the taxpayers of Boulder County for Gross Dam Road. I find it significant that the route chosen will take US72 to its junction with Gross Dam Road (gravel-Boulder County) rather than taking CO72 to Crescent Park Drive (paved Jefferson County) to Gross Dam Road (gravel-Boulder County). The preferred route avoids travel on Jefferson County roads. It uses Boulder County roads exclusively and Boulder County is in negotiations with Denver Water to enhance its water resources which mayor may not influence its decision to allow this excessive use.</i></p> <p>Response #1194-16: Denver Water hired an independent consultant to evaluate using the railroad to transport material to the site. The consultant found that using the railroad would not be feasible for the Project because of the technical, logistical, topographical and cost problems associated with unloading material at the existing railroad siding. Based on discussions with UPRR, the consultant determined that new infrastructure would need to be constructed to accommodate the rail cars and avoid conflicts with the coal train traffic on the mainline; handle unloading of the various materials into trucks, which would be needed to transport the material to the dam site; and avoid conflicts with traffic on Gross Dam Road. A new siding would be very difficult and expensive</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>(approximately \$20 million) to construct due to the constraints of the existing topography and would require a significant amount of material to be hauled to the siding by truck on SH 72. Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1194-14 (ID 4367): <i>I live along Gross Dam Road. The road has been poorly maintained to the point where the washboarding was so severe that I could not maintain traction at 10 miles per hour. It took quite a number of letters to the Boulder County Commissioners to get any maintenance. It is a gravel road that washes and washboards very quickly. It is moderately steep with hairpin turns. Once Gross Dam Road crosses the Rio Grande Railroad tracks going north, the map shows the road as seasonal. It becomes increasingly steep with sharp curves. The road is sufficiently narrow that long vehicles cannot navigate turns while remaining in their own lanes. Clearly the constant need to use both lanes of the road will pose a significant hazard to oncoming traffic. I live several hundred feet above and east of Gross Dam Road at a hairpin turn. Over the years, a number of vehicles have slid off the hairpin in all seasons. Heavy traffic has increased over the past few years. Trucks going north are braking heavily to negotiate the hairpin turn. The sound of this braking is clearly audible for a long distance. However, trucks coming from the north are approaching the hairpin on an uphill grade. The need to negotiate the hairpin at extremely low speeds not only is clearly audible, but I can clearly</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>feel the subauditory vibrations. The vibrational impact on ground water supplies and wells created by the vibrational impact of 40 to 70 trucks per day plus the heavy equipment and blasting associated with heavy construction has not been addressed.</i></p> <p>Response #1194-14: CDOT is responsible for maintenance of the State highways such as SH 72. Boulder County is responsible for maintenance of county roads, such as CR 77S, CR 132, etc. Boulder County maintains Gross Dam Road (CR 77S) from SH 73 to the railroad tracks. Denver Water currently maintains Gross Dam Road from the railroad track crossing to Flagstaff Road. During construction, Denver Water or its contractor would be responsible for maintaining all of Gross Dam Road. Denver Water would work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Intermittent blasting by explosives such as ANFO would occur during the early phases of construction as aggregate supplies are needed for dam construction. Blasting would be designed specifically for Gross Dam and would create ground vibrations and land motion appropriate for the dam structure to sustain. A seismograph would be used to monitor the blasting operations to ensure that acceleration thresholds are not exceeded. The land motion created from blasting recedes rapidly from the source (i.e., the dam) and would be insufficient to collapse wells. While minor ground vibrations attributable to heavy truck traffic near Gross Dam construction activities may be felt by nearby residents, those vibrations are unlikely to cause any effect on groundwater resources or wells. Wells in that area are completed in rock formations that have sufficient strength to preclude any deformation due to minor vibrations.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Construction materials employed for residential well installation have sufficient strength to resist the expected small amount of transitory ground shaking.</p> <p>Comment #1194-10 (ID 4368): <i>Nowhere in the DEIS can I find a seismic engineering study even though the impact on wells and ground well sources of this type of vibration is well known. The failure to include this type of engineering study results in the DEIS being silent as to the liability of Denver Water for damage to ground water supplies caused by its activities.</i></p> <p>Response #1194-10: Blasting for excavation and construction at the Gross Reservoir Dam would create relatively minor shock waves, and may cause slight vibrations to be felt in the nearby area. The blasting vibrations would not affect groundwater levels or the aquifers from which the wells draw groundwater.</p> <p>Studies of blasting effects at other sites have shown that the vibratory shock waves generally do not have any effect on water wells. However, some studies have noted the possibility that if there were an old or poorly constructed well located within 300 feet of the blasting zone, the blasting vibrations could cause corrosion-weakened pipe in the well to bend or collapse. Other studies have noted that blasting vibrations could cause a slight agitation of the well water or water in rock fractures near the well to surge, which could cause a temporary suspension of fine grained sediment in the well. For wells very near the blasting, this shaking could cause the well water to appear slightly turbid for a short time until water from the well bore is flushed out. There are no known residences or water wells within 300 feet of the dam. Thus, there is not likely to be any effect on water wells in the area due to the blasting needed to raise the dam at Gross Reservoir.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Numerous engineering studies have been performed at other blasting sites to evaluate potential impacts to aboveground structures and groundwater. Many of these studies have focused on blasting of overburden rocks for surface coal mines because the magnitude of these blasts are larger than is typical for dam construction projects. An extensive listing of references of the effects of blasting is provided on the Appalachian Region Technology Transfer Blasting Download Page, Office of Surface Mining Reclamation and Enforcement, Rules, Regulations, Research and Resources. On that website, the section on vibrations and water wells provides two notable sources of pertinent information. Hawkins (2000) summarizes case history studies by Siskind and Kopp (1987) that found no adverse effects of the mine blasting to water wells, except for some instances of temporary turbidity increases in the well water. In a study commissioned by the Office of Surface Mining, entitled "Comparative Study of Domestic Water Well Integrity to Coal Mine Blasting" (Stephens 2002) concluded, "No adverse impacts to domestic water wells from surface coal mine blasting were measured during this study."</p> <p>Comment #1194-19 (ID 4369): <i>NOISE The DEIS states that at distances of 50 feet, noise levels diminish rapidly. That statement, without the validation of the circumstances under which it applies, is totally misleading and scientifically unsupported. Evidently no studies of the area in question have been done. I have to drive two miles to get to CO72, yet I can clearly hear the sirens of emergency vehicles on CO72. Sounds carry for miles in this area, and reverberate through the valleys. Heavy construction sounds from the far side of Gross Reservoir 5 miles distant are easily heard. Planes at 10,000 to 15,000 feet are also easily</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>heard. Trains which are about one mile distant can clearly be heard. Clearly, noise pollution needs to be scientifically evaluated in the area. The residents of rural areas choose to live a more isolated life because they do not want the noise pollution of cities. The DEIS does not deal with the science, the reality and the environmental aspects of the noise pollution imposed by heavy traffic and heavy construction.</i></p> <p>Response #1194-19: The noise levels described in the EIS are predicted at distances of less than 50 feet from the source and would be temporary and remote. It is true that noise would travel greater distances from a source of sound at higher elevations due to lack of ground absorption. Sound travels omni-directionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 dB. All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1. FEIS Section 4.12.1 describes the noise levels associated with different phases of the proposed Project. Equipment associated with construction activities are expected to operate in the range of 70 to 90 dBA 50 feet from the source. At distances greater than 50 feet, noise levels diminish rapidly.</p> <p>Comment #1194-17 (ID 4370): <i>ROAD MAINTENANCE The measures proposed to deal with dust and road condition are general and vague. County road standards are designed for specific traffic considerations. Gross Dam Road was not designed or engineered for years of extremely</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>heavy truck traffic. Exhaust and vibration from vehicles has had a negative impact on vegetation along CO72. The relatively light use of Gross Dam Road has greatly lessened this impact. However, the intense use by Denver Water will have the same environmentally negative effects along Gross Dam Road as are seen along CO72. Furthermore, much of the road to the Reservoir is through publicly owned land, so yet another expensive environmental degradation will be imposed not only on local homeowners, but also on the citizens of Colorado that own and pay for this land.</i></p> <p>Response #1194-17: Most of the roadways serving Gross Reservoir (e.g., SHs 72 and 93) are in good condition and are designed to handle large, heavy construction vehicles. However, Denver Water would improve other roads in the Project area to accommodate construction activities, if needed. Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1194-18 (ID 4371): <i>HIGHWAYS COLORADO 93 AND 72 Both of these highways are two-lane highways with very few pullouts. The traffic on both has grown and at certain times of the day, is quite congested. The addition of 40 to 10 semitrailers and large dump trucks, plus the cars of work crews will further exacerbate traffic conditions that are already stressful. CO72 is the only direct highway to the metropolitan area, so alternative routes are not a possibility. A train derailment at the trestle that crosses CO72 three</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>miles west of CO93 caused the road to be closed for approximately 8 hours. The only alternatives were to drive to Boulder and come up Flagstaff Road to Gross Dam Road or to go south to Golden Gate Canyon, then to CO119 and north to CO72. Both alternatives are extremely long and over steep and curving roads. The majority of households have at least one member who commutes to the metropolitan Denver area to work. The added cost of fuel while crawling along behind an endless string of heavy trucks plus the wasted time are a tremendous inconvenience and cash drain for local residents. Yet the DEIS considers this as having a "negligible impact." Clearly the best interest of this group of stakeholders has not only NOT been considered, but has been trivialized. The impact of this truck traffic plus heavy construction for a period estimated to take 4 to 6 years will have a negative impact on property values. Property values have already been heavily impacted by the general economy and job layoffs. This will impose yet another financial blow to Coal Creek Canyon residents. Yet, the residents of Coal Creek Canyon will reap absolutely no benefits from all of this detrimental activity. It may well have the added negative effect of causing real estate tax increases because of the increased costs of road maintenance and fire and police protection.</i></p> <p>Response #1194-18: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77S, SHs 72, 93, and 128, US 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During peak construction period, about 35</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>trucks could deliver material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p> <p>An expanded analysis of impacts to communities surrounding Gross Reservoir was included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Comment #1194-6 (ID 4372): <i>ALTERNATIVES Of the five alternatives selected by the USACE, only one--the mandatory "No Action"--does NOT include the expansion of Gross Dam and Reservoir. In my opinion, the framing of the original problem plus this "only alternative--pick your flavor" conclusion raises serious questions about the impartiality of the parties involved. The failure to evaluate Western Slope impacts raises further questions. In short, it is my opinion based on my personal research that the original stated but unsupported need and the final choices were front end loaded to assure a specific outcome--justification for perfecting Denver Water's Colorado River Upper Basin water claims and assuring a basin to store its trans-basin water exports. In my opinion, this is to assure Denver Water's ability to fuel continued expansion of communities it currently or plans to serve. In my opinion, this project was designed to expand a specific profit center for Denver Water since need by current users has not been demonstrated. I further suggest that many long and short term costs and studies were not evaluated or included or were transferred to governmental agencies supported by taxpayers. Further, it is my</i></p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p><i>opinion that the three meetings held for stakeholders were specifically intended for institutional stakeholders. However, the majority of stakeholders-the taxpayers and citizens that will be most heavily impacted-had virtually no outreach programs and were not given the in-depth information to which they are rightfully entitled by law.</i></p> <p>Response #1194-6: The alternative screening process (Alternatives Screening Report, Corps 2007) did consider the other water sources (agricultural water transfer, conjunctive use and municipal reuse) in combination with storage components other than Gross Reservoir. These various water sources and 29 storage components from the "long list" passed the initial Screen 1A, as discussed in DEIS Section 2.1.2, Screen 1B. Two methods of acquiring agricultural water (ID 601) were reviewed: purchase or dry-year lease. It was assumed that the agricultural rights were available downstream of the Metro WWTP. Other locations, including the Arkansas River Basin, were considered in Screen 1A; however, they were eliminated by the criterion LG1, Must be within the State of Colorado and in the South Platte and mainstem Colorado river basins. The justification for this criterion, as stated in Table 2-1, is still valid: "Exploring options outside the South Platte and mainstem Colorado river basin would necessitate acquiring water rights from new filings, purchasing and transferring existing water rights, and developing extensive new infrastructure to import the water. Obtaining water from the Gunnison, Yampa, White, North Platte, Rio Grande, San Juan/Dolores, or Arkansas river basins would be extremely difficult, if not impossible, in a timeframe consistent with the Purpose and Need." This is also a reasonable criterion to use because it did not eliminate a significant number of the water source options being considered in the screening.</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>Numerous alternatives were configured in Screen 1b that do not include expansion of Gross Reservoir. Leyden Gulch Reservoir, plus several other storage components such as Ralston Reservoir, Spring Creek Reservoir, and Box Elder shallow aquifer were used to configure Project alternatives. Refer to Alternatives 6a and 6b, 7a and 7b, 8b, 9a and 9b, 10b–10e, 11a, 12a, and 13b in Table 2-4. Each of these alternatives was legitimately screened out in Screen 1c or Screen 2 for various reasons. The multi-step process of screening a variety of water sources other than Moffat Tunnel water and storage components other than enlarging Gross Reservoir is justified and well-documented.</p> <p>Denver Water serves customers within the City and County of Denver as well as a number of suburban distributors in surrounding counties (portions of Adams, Arapahoe, Douglas and Jefferson Counties) in addition to special contracts. Denver Water's customers are described in DEIS Section 1.3.3. Figure 1-4 shows Denver Water's CSA, which includes the City and County of Denver as well as the portions of other counties served by Denver Water. Denver Water also has a number of contracts with entities outside the CSA, which are perpetual obligations.</p> <p>Denver Water is a not-for-profit organization, and a significant portion of Denver Water's annual costs do not vary with the amount of water sold. When those costs increase, the costs to ratepayers increase as well. All Denver Water Customers are metered. Denver Water implements a Block Census Rate Structure (i.e., the more one uses, the more one pays). Rates are based on a cost of service analysis comprised of customer classes (e.g., residential, industrial, commercial, and institutional) and by whether customers live inside or outside the City and County of Denver. Costs are recovered from</p>

Comment-Response Report (Public Part C)

Comment Information	Comment	Comments and Responses
		<p>each customer class in proportion to the cost of providing the service to each class. Rates consist of a consumption charge per 1,000 gallons consumed a fixed, per account service charge. Denver Water raised rates in February 2010 and March 2011 to cover maintenance, repair and upgrades to existing facilities and expanding its system capacity over the next decade to meet the future needs of its customers. Plans for expansion include the utility's recycled water system, enlarging Gross Reservoir, and finishing the development of gravel pits that store water to meet downstream water requirements.</p> <p>The major tools used to interact with the public are the public notice and public hearing. The public notice is the primary method of advising all interested parties of a proposed activity for which a permit is sought and of soliciting comments and information necessary to evaluate the probable beneficial and detrimental impacts on the public interest. Public notices are used to announce hearings. Public notices on proposed projects always contain a statement that anyone commenting may request a public hearing. Public hearings are held if comments raise substantial issues which cannot be resolved informally and the Corps decision maker determines that information from such a hearing is needed to make a decision (see 33 CFR 327). Four public hearings were held for the Moffat Project, including an open house held at these events.</p>

Comment-Response Report (Public Part C)

References


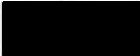
- Apodaca, L.E. and J.B. Bails. 1999. Fraser River Watershed, Colorado – Assessment of Available Water-Quantity and Water-Quality Data Through Water Year 1997, USGS WRIR 98-4255.
- Brekke, Levi D. 2011. Addressing Climate Change in Long-Term Water Resources Planning and Management: User Needs for Improving Tools and Information. Bureau of Reclamation, Technical Services Center. Prepared for the U.S. Army Corps of Engineers, Washington, DC. January.
- Center of the American West. 1997. *Atlas of the New West*. A Project of the Center of the American West, University of Colorado. W. Riebsame, General Editor.
- Hawkins, J. 2000. Appalachian Region Technology Transfer, Blasting Download Page. Accessed at: <http://www.arblast.osmre.gov> on 10/29/2010.
- Kirkham, R.M. and W.P. Rogers. 1981. Earthquake Potential In Colorado, Colorado Geological Survey Bulletin 43, Department of Natural Resources, Denver, Colorado.
- Kumar, S., S.A. Spaulding, T.J. Stohlgren, K.A. Hermann, T.S. Schmidt, and L.L. Bahls. 2009. Potential Habitat Distribution for the Freshwater Diatom *Didymosphenia geminata* in the Continental U.S. *Frontiers in Ecology and the Environment* 7, doi: 10.1890/080054. The Ecological Society of America. www.frontiersinecology.org.
- Nichols, P., M. Murphy, and D. Kenney. 2001. [Summary Report: Water and Growth in Colorado, A Review of Legal and Policy Issues](#), and [Most Frequently Asked Questions About Water in Growth in Colorado](#). Natural Resources Law Center, University of Colorado School of Law.
- Riebsame, W.E. 1997. Western Land Use Trends and Policy: Implications for Water Resources. A Report to the Western Water Policy Review Advisory Commission.
- Siskind and Kopp (1987) in Hawkins, J. 2000. Impacts of Blasting on Domestic Water Wells, Workshop on Mountaintop Mining Effects on Groundwater May 9, 2000. Accessed at: <http://www.arblast.osmre.gov/downloads/Water%20Wells/Hawkins%20Blasting%20Wells%202000.pdf> on 10/29/2010.
- Stephens, D.B. and Associates. 2002. Comparative Study of Domestic Water Well Integrity to Coal Mine Blasting Summary Report. Prepared for Office of Surface Mining Reclamation and Enforcement, Pittsburgh, Pennsylvania, June 28, 2002. Accessed at: <http://www.arblast.osmre.gov/downloads/Water%20Wells/Stephens%20-%20Water%20Well%20Integrity.pdf> on 10/29/2010.
- United States Army Corps of Engineers (Corps). 1998. Final Environmental Impact Statement: Metropolitan Denver Water Supply EIS. Volume 1, p. 3-3. Omaha District.
- United States Army Corps of Engineers (Corps). 2007. Alternatives Screening Report, Moffat Collection System Project. U.S. Army Corps of Engineers Omaha District. August.
- United States Geological Survey (USGS). 2009. Climate Change and Water Resources Management: A Federal Perspective. Circular 1331. U.S. Department of the Interior.
- Western Water Assessment. 2008. Climate Change in Colorado: A Synthesis to Support Water Resources Management and Adaptation. A report for the Colorado Water Conservation Board.
- Western Water Policy Review Advisory Commission. 1998. *Water in the West: The Challenge for the Next Century*. Prepared by A.D. Tarlock.

Comment-Response Report (Public Part C)

This page intentionally left blank.

Public Part D

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
PUBLIC PART D		
<p>Comment #1195 Derek L. Turner</p>	<div style="text-align: center;">  </div> <p>Derek L. Turner </p> <p>March 13, 2010</p> <p>Via U.S. Mail and Electronic Mail</p> <p>Scott Franklin Moffat EIS Project Manager Army Corps of Engineers, Omaha District Denver Regulatory Office 9307 South Wadsworth Boulevard Littleton, CO 80128 Moffat.eis@usace.army.mil</p> <p>Re: Moffat Collection System Project Draft Environmental Impact Statement</p> <p>Dear Mr. Franklin:</p> <p>Thank you for considering my comments on the draft environmental impact statement ("DEIS") that the Army Corps of Engineers ("Corps") has prepared for the Moffat Collection System Project ("Project"). Denver Water has proposed and promoted the Project to serve a perceived shortage of water supplies for 2030. Denver Water claims that its water supplies are vulnerable and imbalanced—it relies primarily on the South Platte River system for 80% of its supply. Additionally, Denver Water calculates a shortage of 34,000 AF in its existing and future water supplies to meet the demand of its customers for 2030. The Project is intended to meet 18,000 AF of that shortage, with the other 16,000 AF coming through conservation of existing supplies.</p> <p>As a Boulder County resident for the past nine years, I regularly fly-fish in a number of the streams affected by this project. I fish for trout in South Boulder Creek as it flows south and east of the city of Boulder and routinely visit South Boulder Creek at Walker Ranch for its outstanding cold-water fishery immediately below the Gross Reservoir Dam. I am personally</p>	<p>Comment #1195-16 (ID 4912): <i>Thank you for considering my comments on the draft environmental impact statement ("DEIS") that the Army Corps of Engineers ("Corps") has prepared for the Moffat Collection System Project ("Project"). Denver Water has proposed and Promoted the Project to serve a perceived shortage of water supplies for 2030. Denver Water claims that its water supplies are vulnerable and imbalanced-it relies primarily on the South Platte River system for 80% of its supply. Additionally, Denver Water calculates a shortage of 34,000 AF in its existing and future water supplies to meet the demand of its customers for 2030. The Project is intended to meet 18,000 AF of that shortage, with the other 16,000 AF coming through conservation of existing supplies.</i></p> <p>Response #1195-16: Please see the response to Comment Identification (ID) 4908.</p> <p>Comment #1195-13 (ID 4911): <i>As a Boulder County resident for the past nine years, I regularly fly-fish in a number of the streams affected by this project. I fish for trout in South Boulder Creek as it flows south and east of the city of Boulder and routinely visit South Boulder Creek at Walker Ranch for its outstanding cold-water fishery immediately below the Gross Reservoir Dam. I am personally affected by the flow patterns established below Gross Reservoir Dam by Denver Water. Additionally, I enjoy fishing and floating in west-slope waters affected by this project. The Fraser River and Colorado River are outstanding trout fisheries with national recognition, and I visit these waters several times throughout the year. I intend to continue visiting these waters, and the Fraser River has a number of stretches of prime trout water that I have yet to visit. My summer activities frequently include backpacking in both the James Peak and Indian Peaks Wilderness areas both on the east and west slopes. Both areas have</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>affected by the flow patterns established below Gross Reservoir Dam by Denver Water. Additionally, I enjoy fishing and floating in west-slope waters affected by this project. The Fraser River and Colorado River are outstanding trout fisheries with national recognition, and I visit these waters several times throughout the year. I intend to continue visiting these waters, and the Fraser River has a number of stretches of prime trout water that I have yet to visit. My summer activities frequently include backpacking in both the James Peak and Indian Peaks Wilderness areas both on the east and west slopes. Both areas have watersheds that will be affected by the Project.</p> <p>I am primarily concerned that (1) Denver Water and the Army Corps continue to embrace only large diversion, engineering, and water storage projects as solutions to perceived water shortage problems, and (2) the proposed project alternative will have serious and potentially irreversible negative impacts on water availability, water quality, and the fisheries of the affected streams on both the east and west slopes. Altered stream flow regimes and low flows are among the most serious threats to Colorado's world-famous cold-water trout streams. As a regular visitor to the wild places and pristine waters affected by the Project, I encourage the Corps to consider a broader variety of alternatives that do not involve the construction of expensive water storage facilities, and to select an alternative that best protects the natural stream flow regime and ensures that any diverted water is absolutely needed and put to the most beneficial and conservative use. I also urge the Corps to consider that these wilderness areas are protected by a Congressional mandate to maintain "as an area where the earth and community of life are untrammelled by man...which is protected and managed so as to preserve its natural conditions".¹</p> <p>These Comments will address the Project's purpose and need, the project alternatives analyzed in the DEIS, the impact analysis presented in the DEIS, and mitigation measures that the Corps should require to lessen the adverse impacts of the Project on the health of the affected watersheds. I urge the Corps to consider these issues and address them in the final EIS for the Project.</p> <p><u>Purpose and Need</u></p> <p>Denver Water claims that the Project serves four needs: reliability, vulnerability, flexibility, and firm yield. DEIS, p. 1-2. The primary justifications for the Project relate to a perceived 34,000 AF per year shortfall in water supplies in 2030, and to lessen Denver Water's reliance on the South Platte River supply system. DEIS p. 1-3. I am pleased to learn that Denver Water intends to develop 16,000 AF of new water supply to meet the 2030 shortfall through additional conservation. DEIS p. 1-10. I also am pleased to read that Denver Water is examining system improvements, such as gravel pit storage and canal lining, to firm up its existing water supplies. DEIS p. 1-18.</p> <p>However, I believe that Denver Water could be substantially more aggressive and optimistic in projecting metro-area water conservation. In 2006, Denver Water admitted that its post-2002 drought conservation measures reduced domestic water use such that Denver Water</p> <p>¹ 16 U.S.C. § 1131(c) (1964).</p>	<p><i>watersheds that will be affected by the Project.</i></p> <p>Response #1195-13: The U.S. Army Corps of Engineers (Corps) has reviewed the recreation analysis and has provided additional information and revisions for clarity in Final Environmental Impact Statement (FEIS) Section 5.15. Prior to making decisions on the proposed Moffat Collection System Project (Moffat Project or Project), the Corps will evaluate and consider the Project's environmental effects according to National Environmental Policy Act of 1969, as amended (NEPA).</p> <p>Comment #1195-1 (ID 4910): <i>I am primarily concerned that (1) Denver Water and the Army Corps continue to embrace only large diversion, engineering, and water storage projects as solutions to perceived water shortage problems, and (2) the proposed project alternative will have serious and potentially irreversible negative impacts on water availability, water quality, and the fisheries of the affected streams on both the east and west slopes. Altered stream flow regimes and low flows are among the most serious threats to Colorado's world-famous cold-water trout streams. As a regular visitor to the wild places and pristine waters affected by the Project, I encourage the Corps to consider a broader variety of alternatives that do not involve the construction of expensive water storage facilities, and to select an alternative that best protects the natural stream flow regime and ensures that any diverted water is absolutely needed and put to the most beneficial and conservative use. I also urge the Corps to consider that these wilderness areas are protected by a Congressional mandate to maintain "as an area where the earth and community of life are untrammelled by man...which is protected and managed so as to preserve its natural conditions".[1] FOOTNOTE: [1] 16 U.S.C. 1131(c)(1964). These Comments will address the Project's purpose and need, the project alternatives analyzed in the DEIS, the impact analysis</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>had to raise its rates in response.² Rates are also scheduled for an increase in 2010.³ Rather than raise the cost of water, which may be a disincentive to conservation (residents may very well ask “what use is it to conserve water, if the utility will just need to raise its rates because it’s not selling enough water?”). Denver Water should increase financial incentives for reducing domestic water use. For example, greater incentives could be provided for residents who remove Kentucky Bluegrass in favor of native grasses and xeriscaping. Greater incentives could be provided for replacing inefficient fixtures in old residences. New housing developments and subdivisions should be restricted from landscaping with water-intensive plants that cannot survive in our arid climate without regular watering. The water saved from these small increases in efficiency and reduced outdoor water use could be applied to future needs, and Denver Water could continue to upgrade its diversion and transmission facilities to increase system-wide efficiency, reliability, and availability. Money saved by reducing the need to build large-scale and expensive projects such as the Moffat Collection System Project could be factored into the existing water rate structure.</p> <p>Accordingly, I believe that Denver Water’s estimate of 2030 firm-yield through additional conservation measures is far too conservative. The DEIS mentions that Denver customers averaged a savings of 27,500 AF per-year from 1980-1997 through conservation. DEIS p. 1-12. However, Denver Water’s conservation plan through 2030 aims for a reduction of just 16,000 AF per year through conservation. DEIS p. 1-17. I cannot understand how Denver Water can plan for water conservation for the next 20 years at a goal far less than its historical conservation savings. The Denver area, a national leader in green technology, is increasingly environmentally aware and concerned about the effects of climate change on our water supplies. I believe that Denver Water should set far more ambitious goals for conserving and maximizing the efficiency of domestic water use among its customers. And I believe that Denver Water’s customers could meet optimistic and progressive goals as the benefits of green-building technologies and carbon-reduction strategies become more widespread and affordable over the next 20 years.</p> <p>According to Denver Water’s website, the average person served by the agency uses 168 gallons per day.⁴ The water conservation achievements of Brisbane, Australia, a city of 2 million with a hot and dry climate, should serve as an example to Denver Water and other major city water providers in the nation. By setting aggressive goals and water use restrictions, particularly for outdoor use, Brisbane reduced its per capita water use down to 32.5 gallons per day in 2007.⁵ The government currently has set a goal of around 53 gallons per day of per capita use, and citizens are far outpacing the goal.⁶</p> <p>The city of Los Angeles provides perhaps a better comparison. Long relying on transbasin diversions, Los Angeles recently implemented simple and reasonable water use restrictions:</p> <p>² Kim McGuire, <i>Denver Water Floats Rate Shift</i>, Denver Post, August 24, 2006, available at http://www.denverpost.com/news/ci_4228016.</p> <p>³ See http://denverwater.org/BillingRates/RatesCharges/2010Rates/.</p> <p>⁴ Denver Water: About Us: Key Facts: Denver Water’s Water use, http://www.denverwater.org/AboutUs/KeyFacts/, last visited November 15, 2009.</p> <p>⁵ ABC News, <i>Brisbane Residents Best Water Savers in World: Newman</i>, August 27, 2007, available at http://www.abc.net.au/news/stories/2007/08/27/2016895.htm.</p> <p>⁶ Queensland Water Commission Homepage, http://www.qwc.qld.gov.au/, last visited November 15, 2009.</p>	<p><i>presented in the DEIS, and mitigation measures that the Corps should require to lessen the adverse impacts of the Project on the health of the affected watersheds. I urge the Corps to consider these issues and address them in the final EIS for the Project.</i></p> <p>Response #1195-1: Prior to making decisions on the proposed Moffat Project, the Corps will evaluate and consider the Project’s environmental effects according to NEPA. Responses to comments pertaining to Purpose and Need, alternatives, impact analysis, and mitigation are presented throughout the letter in the appropriate locations.</p> <p>Comment #1195-3 (ID 4909): <i>Purpose and Need Denver Water claims that the Project serves four needs: reliability, vulnerability, flexibility, and firm yield. DEIS, p. 1-2. The primary justifications for the Project relate to a perceived 34,000 AF per year shortfall in water supplies in 2030, and to lessen Denver Water’s reliance on the South Platte River supply system. DEIS p. 1-3. I am pleased to learn that Denver Water intends to develop 16,000 AF of new water supply to meet the 2030 shortfall through additional conservation. DEIS p. 1-10. I also am pleased to read that Denver Water is examining system improvements, such as gravel pit storage and canal lining, to firm up its existing water supplies. DEIS p. 1-18.</i></p> <p>Response #1195-3: The Corps notes the comment.</p> <p>Comment #1195-15 (ID 4908): <i>However, I believe that Denver Water could be substantially more aggressive and optimistic in projecting metro-area water conservation. In 2006, Denver Water admitted that its post-2002 drought conservation measures reduced domestic water use such that Denver Water had to raise its rates in response.[2] Rates are</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>lawns could only be watered with automatic sprinklers on two days a week and outdoor hoses must have an automatic shut off nozzle.⁷ These simple restrictions resulted in an 18.4% reduction in water consumption in the city. Use by single family homes was down 23%. Remarkably, through these simple rules, Los Angeles now uses less water today than 25 years ago, with more than one million more customers.⁸ This provides an excellent example of the capabilities of demand-side water management that should be seen as viable options for meeting perceived future shortages. If Denver could decrease water use by 18%, it could save nearly 48,000 AF per year.⁹</p> <p>Although I applaud Denver Water for being among the leaders in the state for conservation and progressive solutions to water supply shortages, I believe that it could be a national example for the success of conservation and smart water use. Denver water users reduced demand by 24% during 2002¹⁰ and have continued reducing water consumption even through the subsequent wetter years, with water consumption down 33% from pre-2002 levels¹¹. The amount conserved by Denver Water customers was double the conservation goal set by Denver Water.¹² Based on these statistics, I see no reason to project such low amounts of water available through conservation. It also appears that Denver Water is dramatically underestimating the abilities of its customers to conserve water. I urge Denver Water to set higher conservation goals for its citizens and to include progressively higher conservation amounts in projections of water supplies. I also believe that Denver Water should consider strengthening its incentives for reducing water use, including incentives for non-native grass replacement and efficiency improvements. Denver Water has an excellent opportunity to demonstrate to western water-providers that potential climate-change challenges and projected water shortages can be economically and efficiently managed through conservation of existing supplies rather than building multi-million-dollar storage and transmission projects.</p> <p>Based on (1) the statistics showing continued water conservation in Denver, (2) the aggressively conserving and responsive Denver Water customer base, and (3) the successful achievements of other city water providers in reducing domestic water consumption, it is clear that the DEIS and Denver Water may be inaccurate in the estimated firm-yield to be obtained by 2030 through conservation. Because the estimate of 16,000 AF through 2030 is far too low, I believe that the DEIS' purpose and need statement is fundamentally flawed due to an overestimation of the amount of firm-yield needed by Denver Water. This flaw results in an alternatives analysis that is incorrectly focused narrowly on obtaining 18,000 AF of new firm-yield. I urge the Corps to take a hard look at the possibility that Denver Water's perceived water supply shortage through 2030 could be fully obtained through continued and regulated conservation.</p> <p>⁷ Shelby Grad, <i>L.A. Cuts Water Consumption by 18%, Setting New Conservation Record</i>, Los Angeles Times, December 4, 2009, available at http://latimesblogs.latimes.com/lanow/2009/12/4-cuts-water-consumption-by-18-setting-new-conservation-record.html.</p> <p>⁸ Id.</p> <p>⁹ Key Facts, Denver Water: http://www.denverwater.org/AboutUs/KeyFacts/, last accessed December 19, 2009.</p> <p>¹⁰ Kim McGuire, <i>Denver Water Floats Rate Shift</i>, Denver Post, August 24, 2006, available at http://www.denverpost.com/news/ci_4228016.</p> <p>¹¹ Use Only What You Need, http://www.usonlywhatyouneed.org/, last visited November 15, 2009.</p> <p>¹² Id.</p>	<p><i>also scheduled for an increase in 2010.[3] Rather than raise the cost of water, which may be a disincentive to conservation (residents may very well ask "what use is it to conserve water, if the utility will just need to raise its rates because it's not selling enough water?"), Denver Water should increase financial incentives for reducing domestic water use. For example, greater incentives could be provided for residents who remove Kentucky Bluegrass in favor of native grasses and xeriscaping. Greater incentives could be provided for replacing inefficient fixtures in old residences. New housing developments and subdivisions should be restricted from landscaping with water-intensive plants that cannot survive in our arid climate without regular watering. The water saved from these small increases in efficiency and reduced outdoor water use could be applied to future needs, and Denver Water could continue to upgrade its diversion and transmission facilities to increase system-wide efficiency, reliability, and availability. Money saved by reducing the need to build large-scale and expensive projects such as the Moffat Collection System Project could be factored into the existing water rate structure.</i></p> <p><i>FOOTNOTES: [2] Kim McGuire, Denver Water Floats Rate Shift, Denver Post, August 24, 2006, available at http://www.denverpost.com/news/ci_4228016. [3] See http://denverwater.org/BillingRates/RatesCharges/2010Rates/. Accordingly, I believe that Denver Water's estimate of 2030 firm-yield through additional conservation measures is far too conservative. The DEIS mentions that Denver customers averaged a savings of 27,500 AF per-year from 1980-1997 through conservation. DEIS p. 1-12. However, Denver Water's conservation plan through 2030 aims for a reduction of just 16,000 AF per year through conservation. DEIS p. 1-17. I cannot understand how Denver Water can plan for water conservation for the next 20 years at a goal far less than its historical conservation savings. The Denver area, a national leader in green technology, is increasingly environmentally aware and concerned about the effects of climate change on our water supplies. I believe that</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p><u>Alternatives</u></p> <p>The examination of project alternatives is the “heart of the environmental impact statement.” 40 C.F.R. 1502.14. The Corps is required to examine all reasonable alternatives under the National Environmental Policy Act (“NEPA”) and all practicable alternatives under the Corps guidelines. DEIS p. 2-1. The DEIS is to recommend the least environmentally damaging practicable alternative. 40 C.F.R. 2030.10(a).</p> <p>The Corps’ examination of project alternatives is systematic and thorough, although I believe it is inappropriately restricted by the Corps’ focus on developing new infrastructure and large water storage projects. In particular, I fail to understand the reasoning of the LP2 criteria of Screen 1A of the DEIS. The Corps states that a project alternative will only advance past this screen if the alternative involves storage of “at least 15,000 AF in a surface impoundment.” DEIS p. 2-6, Table 2-1. The rationale provided by the Corps for this criteria is that this minimum storage amount “is needed to reduce the number of possible storage elements to a manageable and practical combination.” DEIS p. 2-6, Table 2-1. If the Purpose and Need statement were more properly focused (i.e., “to meet Denver Water’s reasonable 2030 water supply demands”), I believe that the Corps must also consider smaller storage projects, agricultural transfers, and aggressive conservation. Even with the existing Purpose and Need statement, I find it unacceptable that the Corps will only be considering solutions to perceived water supply shortages that involve construction of large-scale surface impoundment facilities. This single criteria eliminated 94 potential components or water sources for meeting the stated purpose and need. DEIS p. 2-9, Table 2-3. Certainly there are reasonable and practicable alternatives to meeting a water shortage of 18,000 AF without building large, expensive surface reservoirs that hold at least 15,000 AF of water. Additionally, I am not persuaded in the least that Denver Water, the largest and perhaps most advanced and complex water supply agency in the state, is incapable of managing a number of new storage sites. This criteria alone eliminates a huge number of reasonable and practicable alternatives that involve localized small-scale impoundments that would greatly reduce environmental impacts, reduce evapotranspiration, and would probably be less costly than other alternatives that advanced in the screening process. I urge the Corps, a government agency that should be focusing on new and innovative ways to address the increasingly complex climatologic and environmental problems we face, to reconsider including the LP2 criteria in the 1A screening process.</p> <p>I am pleased that the Corps and Denver Water identified a number of alternative small-scale methods of increasing firm-yield water supplies, such as gravel pit storage and conversion of agricultural water rights. However, I believe that these elements were improperly screened out and the five alternatives selected for further review in the DEIS are all essentially identical. Each of the five involves enlargement of Gross Reservoir by at least 52,000 AF, with a range up to 72,000 AF. DEIS p. 2-19. Although I recognize the cost savings and lower impact of enlarging an existing reservoir rather than building new storage, I believe that the Corps improperly restricted the alternatives analysis in the screening process such that the five alternatives are essentially identical. As mentioned above, I believe that smaller-scale storage, such as abandoned gravel pits, coupled with a purchase of agricultural water rights and conservation measures, could be an effective method of meeting Denver Water’s 2030 needs. In particular,</p>	<p><i>Denver Water should set far more ambitious goals for conserving and maximizing the efficiency of domestic water use among its customers. And I believe that Denver Water’s customers could meet optimistic and progressive goals as the benefits of green-building technologies and carbon-reduction strategies become more widespread and affordable over the next 20 years. According to Denver Water’s website, the average person served by the agency uses 168 gallons per day.[4] The water conservation achievements of Brisbane, Australia, a city of 2 million with a hot and dry climate, should serve as an example to Denver Water and other major city water providers in the nation. By setting aggressive goals and water use restrictions, particularly for outdoor use, Brisbane reduced its per capita water use down to 32.5 gallons per day in 2007.[5] The government currently has set a goal of around 53 gallons per day of per capita use, and citizens are far outpacing the goal.[6] FOOTNOTES: [4] Denver Water: About Us: Key Facts: Denver Water’s Water use, http://www.denverwater.org/AboutUs/KeyFacts/, last visited November 15, 2009. [5] ABC News, Brisbane Residents Best Water Savers in World: Newman, August 27, 2007, available at http://www.abc.net.au/news/stories/2007/08/27/2016895.htm. [6] Queensland Water Commission Homepage, http://www.qwc.qld.gov.au/, last visited November 15, 2009. The city of Los Angeles provides perhaps a better comparison. Long relying on transbain diversions, Los Angeles recently implemented simple and reasonable water use restrictions: lawns could only be watered with automatic sprinklers on two days a week and outdoor hoses must have an automatic shut off nozzle.[7] These simple restrictions resulted in an 18.4% reduction in water consumption in the city. Use by single family homes was down 23%. Remarkably, through these simple rules, Los Angeles now uses less water today than 25 years ago, with more than one million more customers.[8] This provides an excellent example of the capabilities of demand-side water management</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>Screen 2 of the analysis identified only the possibility of 3000 AF of firm-yield through purchase of agricultural water rights. DEIS p. 2-18, Table 2-6. I find it hard to believe that Denver Water is not willing to consider agricultural water rights purchases and transfers to solve its water needs over the next twenty years. Further, there will certainly be more than 3000 AF of water reasonably available for acquisition by Denver Water through transfers by the year 2030. Thus, I believe the Corps screening process improperly failed to consider the likelihood that significant quantities of water will become available from agricultural water purchases and transfers.</p> <p>Although I believe that the Project's need is overstated due to an underestimate of future water savings through conservation, I also believe that all project alternatives unacceptably include large diversions from west slope streams. The negative effects on stream health and the total decimation of several streams with viable trout populations outweigh the cost savings of the proposed Project alternative. Thus, I urge the Corps to consider adopting aspects of the other alternatives, such as gravel pit storage and agricultural water rights conversion as discussed above, so that the total amounts diverted from the west slope may be reduced to save some of these streams and habitats scheduled for destruction. If the Corps continues to recommend the Proposed Project Alternative, I believe that the negative impacts of this alternative must be reduced through mitigation or through Project operation, and I urge the Corps to address these impacts in the final EIS.</p> <p><u>Impacts</u></p> <p><u>Presentation of Impacts and Consequences</u></p> <p>I am primarily concerned with the Project's negative impacts on streamflow and aquatic habitat degradation on the west slope streams affected by the Project. First, I believe that the presentation of impacts in the DEIS is flawed because the Corps failed to adequately present streamflow data needed to determine the actual effects on the environment. The health of a stream's aquatic environment is nearly wholly dependent on the availability of water. By presenting streamflow data in average monthly flow, a single day of zero or very low flow could be masked in the numbers. That single day of zero or very low streamflow could totally decimate the aquatic ecosystem. Trout and the symbiotic environment that makes up the aquatic ecosystem need a minimum streamflow every day. I encourage the Corps to present streamflow data in daily format to enable the public to more adequately analyze the impacts of the Project on these streams.</p> <p>Second, I believe that the brief discussion of Flushing Flows presented at pp. 4-314 to 4-315 is inaccurate and biased. The discussion of the benefits of high spring flows is very brief and limited. These benefits are termed merely "important aspect[s] of flow regimes." DEIS p. 4-314. However, the discussion following this brief sentence includes two full paragraphs discussing the negative impacts of flushing flows on the aquatic habitat. Although fish and other aquatic species can indeed be harmed by high spring flows, these ecosystems have evolved over millions of years with a yearly cycle of high flow in the spring. Dismissing such high flows as a "disturbance that reduces populations of fish and invertebrates" seems to suggest that the Corps analyzed the impacts of Project's diversions from a biased perspective: that eliminating or</p>	<p><i>that should be seen as viable options for meeting perceived future shortages. If Denver could decrease water use by 18%, it could save nearly 48,000 AF per year.[9] FOOTNOTES: [7] Shelby Grad, L.A. Cuts Water Consumption by 18%, Setting New Conservation Record, Los Angeles Times, December 4, 2009, available at http://latimesblogs.latimes.com/lanow/2009/12/1a-cuts-water-consumption-by-18setting-new-conservation-record.html. [8] Id. [9] Key Facts, Denver Water. AboutUs/KeyFacts/">http://www.denverwater.org>AboutUs/KeyFacts/, last accessed December 19,2009. Although I applaud Denver Water for being among the leaders in the state for conservation and progressive solutions to water supply shortages, I believe that it could be a national example for the success of conservation and smart water use. Denver water users reduced demand by 24% during 2002[10] and have continued reducing water consumption even through the subsequent wetter years, with water consumption down 33% from pre-2002 levels.[11] The amount conserved by Denver Water customers was double the conservation goal set by Denver Water.[12] Based on these statistics, I see no reason to project such low amounts of water available through conservation. It also appears that Denver Water is dramatically underestimating the abilities of its customers to conserve water. I urge Denver Water to set higher conservation goals for its citizens and to include progressively higher conservation amounts in projections of water supplies. I also believe that Denver Water should consider strengthening its incentives for reducing water use, including incentives for non-native grass replacement and efficiency improvements. Denver Water has an excellent opportunity to demonstrate to western water-providers that potential climate-change challenges and projected water shortages can be economically and efficiently managed through conservation of existing supplies rather than building multi-million-dollar storage and transmission projects. FOOTNOTES: [10] Kim McGuire, Denver Water Floats Rate Shift, Denver Post,</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>reducing yearly spring flushing flows needed for ecosystem maintenance is actually be <i>beneficial</i> for the aquatic habitat, and weighs in favor of diverting more water during May, June and July. DEIS p. 4-314. The Corps cites a number of studies suggesting that there are negative impacts on habitat from these flows, but cites just a few studies in its two-sentence discussion of the benefits of these flows for maintaining the substrate of mountain streams. DEIS p. 4-314. I believe that this discussion of spring flushing flows is inaccurate and improperly biased towards in order to persuade the public that increased diversions of these streams will not impact the stream environment.</p> <p><u>Specific Impacts and Consequences</u></p> <p>I was dismayed to learn that many of the streams on the west slope affected by the Project already run dry in most years due to historic Denver Water diversions. I was aware that Denver Water's diversions of Fraser River tributary streams were substantial; I did not know that West St. Louis Creek, East St. Louis Creek, Fool Creek, North Fork Ranch Creek, and South Fork Ranch Creek all currently run dry below their diversions in average years. DEIS p. 3-225 to 3-231. According to American Rivers, the Fraser River system already sees 65% of its water diverted by Denver Water.¹³ The biological samplings of the remainder of these high-altitude streams originating in the James Peak, Indian Peaks, and Byers Peak wilderness areas are absolutely teeming with fish, including several streams with genetically pure Colorado River outthroat trout populations. DEIS p. 3-231. This suggests that these streams are prime trout habitats, limited only by the availability of water due to many historical Denver Water diversions. Thus, the environmental baseline for comparison to alternatives appears to be a significantly affected environment. Because of this, I urge the Corps to consider reducing further impacts to these streams and consider that many of these streams are already near a tipping point, unable to sustain additional diversions in the amounts proposed.</p> <p>I am concerned that those diversions of an already depleted Fraser River system may take the entire aquatic habitat past the tipping point needed to maintain a healthy mountain river. Due to Denver Water's proposal for additional Fraser River system diversions, Fraser River was named by American Rivers to be the third-most endangered river in the United States in 2005.¹⁴ Because of chemicals and sediment constantly introduced to the river system by road maintenance crews during the winter ski-season, the Fraser River is already at a minimal and critical level for diluting the magnesium chloride and flushing the traction sands that run off Highway 40 into the river system.¹⁵ The proposed alternative will result in a reduction of Fraser River streamflow below the diversion by 68% and 45% of average in May and June, respectively. DEIS Appendix p. H3-2. In a river already over-depleted by Denver Water diversions – a river that the tourist economy of Grand County depends on – these are significant diversions that will likely have immediate and irreversible catastrophic effects on the Grand County human environment. These diversions would increase water temperature, chemical concentrations, and sediment deposition; changes that would have dangerous effects downstream in the Colorado River.</p> <p>¹³ American Rivers, <i>America's Most Endangered Rivers of 2005</i>, available at http://www.americanrivers.org/assets/pdfs/mer-past-reports/AR_MER_20054625.pdf. ¹⁴ <i>Id.</i> at 12. ¹⁵ <i>Id.</i></p>	<p>August 24, 2006, available at http://www.denverpost.com/news/ci_4228016. [11] <i>Use Only What You Need</i>, http://www.useonlywhatyouneed.org/, last visited November 15, 2009. [12] <i>Id.</i> Based on (1) the statistics showing continued water conservation in Denver, (2) the aggressively conserving and responsive Denver Water customer base, and (3) the successful achievements of other city water providers in reducing domestic water consumption, it is clear that the DEIS and Denver Water may be inaccurate in the estimated firm-yield to be obtained by 2030 through conservation. Because the estimate of 16,000 AF through 2030 is far too low, I believe that the DEIS' purpose and need statement is fundamentally flawed due to an overestimation of the amount of firm-yield needed by Denver Water. This flaw results in an alternatives analysis that is incorrectly focused narrowly on obtaining 18,000 AF of new firm yield. I urge the Corps to take a hard look at the possibility that Denver Water's perceived water supply shortage through 2030 could be fully obtained through continued and regulated conservation.</p> <p>Response #1195-15: The Board of Water Commissioners (Denver Water) is a not-profit public utility that is governed by the Denver City Charter, and a significant portion of Denver Water's annual costs do not vary with the amount of water sold. When those costs increase, the costs to ratepayers increase as well. Denver Water explored a "Cash for Grass" program. In 2008 Denver Water held several focus groups and found that there was little interest in participating in this type of program. Therefore, Denver Water pursued other conservation measures that were more cost effective and that would have higher customer participation. Part of the issue with offering a program of this type to single family residential customers is that the majority of those customers already irrigate at a level that is below the efficiency level for turf. Replacing this turf with water efficient landscaping (that still requires</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>Other diversions in the proposed alternative would have even more devastating impacts on the aquatic ecosystems of the smaller tributaries involved, in average water years. Of particular note, St. Louis Creek is to be reduced 100% in October, December, January, and February, and 91% (March). DEIS Appendix, p. 113-13. Essentially, Denver Water will be diverting the entire stream in average years. And according to the biological studies, St. Louis Creek has 5,231 fish per hectare, obviously a thriving ecosystem suitable for trout. I find this loss of a healthy watershed ecosystem to be unacceptable, given other reasonable alternatives for meeting Denver's water demands.</p> <p>The proposed alternative also will divert 100% of the streamflow in average years of King Creek, Middle and South Fork of Ranch Creek, Steelman Creek, Bobtail Creek, Jones Creek, and McQueary Creek. DEIS Appendix pp. H3-15 to H3-27. Although many of these creeks are without trout populations (mainly because they already run dry below existing diversions), it is painful to read and to comprehend the enormous and permanent changes that this Project will reap on the human environment. Grand County is an important national and international tourist destination and a backyard recreational destination for us Front Range denizens. After the Mono Lake/Owens Valley experience of California, many assumed that the days of cities diverting entire watersheds for domestic consumption are over. If Denver Water is allowed to proceed with this proposed project alternative, it appears that many of Colorado's own streams will meet the same fate.</p> <p>Other creeks with significant diversions include many small tributaries of the Fraser River. Cub and Buck Creeks are to be reduced 90% (May) and 52% (June). Jim Creek is to be reduced 92% (May) and 46% (June). Cooper Creek is to be reduced 97% (May) and 66% (June). Little Vasquez Creek is to be reduced 97% (May), 60% (June), 39% (July), and 50% (August). Elk Creek is to be substantially reduced nearly year-round, including 62% (November), 70% (December), 85% (January), 80% (February), 62% (March), and 87% (May). DEIS Appendix pp. 113-3 to 113-13. Many of these streams have significant and growing trout populations below the diversions, documented by the DEIS. These populations are at risk of complete eradication due to these enormous diversions. In the final EIS for the Project, I urge the Corps to fully disclose to the public that the Project will likely reduce trout population numbers significantly in these stretches, and that this reduction in trout population will undoubtedly affect the upstream reaches of these streams into the James Peak, Indian Peaks, and Byers Peak wilderness areas.</p> <p>Further, because these diversions are presented as reductions in average annual flow in the DEIS discussion of Surface Water Environmental Consequences to River Segment (DEIS Section 4.1.1.2), the Corps masks the Project's actual impacts on these streams. In several months, the Project will not divert additional water. With three months of 100% flow diversion, the average annual reduction could be much lower, around 20-30%. Thus, I believe the DEIS is flawed in that the average reader will not readily discover that Denver Water intends to remove whole streams from their beds to deliver to Denver lawns. One must go to Volume 5 of the DEIS (out of 6 total volumes) to discover this.</p> <p>I also encourage the Corps to consider that the unappropriated water in these western slope streams is needed to maintain a healthy flow cycle for the aquatic environment. The health</p>	<p>irrigation) nets the utility very little water savings. This is compounded by the cost of this landscaping compared to the cost of water. The net result to the customer is that it is a costly endeavor, that even when offset by a utility rebate, would take years to pay back the investment. Denver Water has concentrated its outdoor water conservation program as follows: "Use Only What You Need" – a nationally recognized conservation marketing campaign, and xeriscape – a term developed by Denver Water to describe landscaping that has little to no watering needs. Denver Water does have a program in place which provides incentives to remove bluegrass from large landscapes including park systems and those owned by business parks and homeowners associations.</p> <p>As shown in FEIS Table 1-1, the 379,000 acre-feet (AF) of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A and research from the American Water Works Association was incorporated into the calculations of natural replacement savings. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22 percent (%) by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>

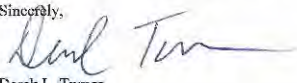
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>of the watershed depends on the yearly spring flushing flows that come with runoff to clear the stream of sediments and deposit. Diverting the remaining unappropriated spring flows will have immediate adverse effects on the overall health of the watersheds of the west slope. Without allowing for a yearly spring flush, the entire ecosystems comprising these watersheds may be changed permanently. Thus, I urge the Corps to consider a mitigation proposal allowing for a single, 24-hour period of high spring flushing flows once yearly to clear the stream of sediment and maintain the healthy balance of the normal yearly streamflow cycle.</p> <p>In sum, I have a number of problems with both the presentation of streamflow impacts as well as the actual impacts that the Corps has selected for the preferred project alternative. I believe that streamflow data should be presented in a daily format to more accurately determine adverse effects on the health of the aquatic ecosystem. Moreover, discussion of streamflow reductions in average annual flow conveniently masks the fact that the Project fully intends to substantially reduce the streamflow of the Fraser River and most of its west slope tributaries. The Project also will effectively eradicate entire watershed fisheries, notably that in St. Louis Creek. I urge the Corps to reconsider allowing these significant and destructive environmental impacts on the human environment in Grand County. Alternatively, I urge the Corps and Denver Water to adopt a mitigation plan or operating agreement to allow a yearly 24-hour period of high spring flows to provide these ecosystems with a needed flushing and at least maintain a semblance of the historic aquatic streamflow cycle.</p> <p><u>Mitigation</u></p> <p>I am pleased to read that the Corps and Denver Water may provide an “Additional Environmental Storage” pool of 5,000 AF in the enlarged Gross Reservoir to maintain minimum year-round flows in South Boulder Creek through Walker Ranch and Boulder. DEIS Appendix p. M-10. Two years ago, the section of South Boulder Creek from Highway 93 to Table Mesa Drive held many healthy brown and rainbow trout that pushed fourteen and fifteen inches. Many of these trout run up the river out of Baseline Reservoir to spawn upstream. Unfortunately, a fish kill in November 2008 wiped out several spawning brown trout. Apparently, the fish kill was due in part to rapid decrease in releases from Gross Reservoir dam, stranding several fish in side pools.¹⁶ The Boulder Flycasters Chapter of Trout Unlimited recently spent several thousand dollars to construct a fish passage structure to improve spawning success.¹⁷ I urge Denver Water and the Corps to adopt mitigation measures to provide for a minimum year-round flow of 7 cfs, as recommended by the Colorado Division of Wildlife. Doing so would protect this crucial section of habitat enjoyed by thousands of local anglers a year.</p> <p>I consider South Boulder Creek through Walker Ranch to be one of the finest trout streams along the Front Range due to its secluded nature (no roads run alongside the stream) and its proximity to Boulder. Yet this stream experiences very low flows through the winter months, with sections of the creek freezing up completely. Trout are left to hope for the best in the few</p> <p><small>¹⁶ See http://frontrangeanglersfishingreport.blogspot.com/2008/10/rescue-mission.html; http://frontrangeanglersfishingreport.blogspot.com/2008/11/my-exchange-with-denver-water.html. ¹⁷ See Laura Snider, <i>Fish Will be Free to Swim in South Boulder</i>, Daily Camera, November 9, 2008, available at http://www.dailycamera.com/archivesearch/ci_13106351?AD1D.</small></p>	<p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Denver Water implements an aggressive rebate program and rewards customers for installing low-flow fixtures, including high-efficiency toilets. For example, from 2007-2009, Denver Water processed approximately 38,600 rebates saving nearly 1,000 AF of water. Additionally, Denver Water has launched a pilot program with Habitat for Humanity by buying inefficient toilets (more than 1.6 gallons per flush) from its Home Improvement Outlet stores as an attempt to save over 40 acre-feet per year (AF/yr). Since 1991, all toilets sold in the United States (U.S.) and Colorado have been “low-flow” toilets (1.6 gallons per flush). Ultra low-flush toilets (1.1 gallons per flush) are promoted by Denver Water and any homeowner who installs these toilets is eligible for a one-time rebate. Denver Water also offers free water-use audits and incentive contracts to commercial, industrial, and institutional customers.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>very deep holes throughout the canyon. During this past summer, I observed that the brown trout population in this section is currently thriving and is naturally reproducing. I caught gorgeous wild and mature trout up to 16 inches and several down into the 3-4 inch range. I witnessed tiny fry in the side pools. It is clear, based on my seven years fishing this stretch, that this creek is a thriving cold-water fishery and has incredible recreational, scenic, and aquatic values that should be preserved for the public. To this end, I urge Denver Water to adopt a stream management plan that allows for more regular dam operations and streamflow release patterns. Often, flows below the dam double in volume unpredictably late in the year, only to fall back even lower only a few days later.¹⁸ Such a plan should include either a more gradual ramping up and down of flows below Gross Dam, or an operation schedule that reduces the wild fluctuations of flows throughout the year. It is my hope that the Additional Environmental Storage pool in an enlarged Gross will assist in the maintenance of minimum winter flows, although I view the unpredictable jumps in streamflow as problematic year-round.</p> <p>Additionally, I am concerned about the loss of the annual spring flushing flows that the west slope watersheds depend on for ecological health. I urge the Corps and Denver Water to consider a modification of their operation of diversionary structures on the west slope to allow at least one 24-hour period of high flows each spring. Although this is less water for less time than would be optimal for the aquatic health of these streams, a single uninterrupted high flow period would provide immeasurable benefits to these streams and the ecosystems of these watersheds. Allowing a run of the river operation for just 24 hours each spring, during high runoff, would enable the stream to clear out some of the debris and sediment, flush out areas of the streams the trout depend on for spawning and winter holding beds, and protect the yearly cycle of streamflow that the watersheds have been experiencing for millions of years. Adopting such a mitigation plan would have minimal impacts on Denver Water, as it could operate allow each creek to flush separately while maintaining diversions through Moffat Tunnel and into Gross Reservoir.</p> <p>Further, I believe that the Corps and Denver Water must coordinate proper streamflow management activities with Grand County. I encourage the Corps to examine the recommendations of Grand County stream management contained in the Grand County Stream Management Plan that is in development.¹⁹</p> <p><u>Conclusion</u></p> <p>¹⁸ For example, in 2009, flows began the year at less than 10 cfs below Gross Reservoir, spiked to near 300 cfs in February (in just a few days), dropped back down to less than 10 cfs by mid-February, spiked back to near 100 cfs a day later, and back down by the end of the month. This pattern repeated itself through the spring until stabilizing somewhat during the late summer months. However, in late August 2009, flows went from around 75 cfs up to 340 cfs in a single day, then dropped back down to just under 100 cfs a day later. Currently, this sporadic period appears to be repeating itself. Surely the trout and insect life in this canyon are as confused about the flow conditions as a fisherman trying to plan a visit when for times when the flows are fishable. This info was obtained from the streamflow gauge data, available at http://www.dwr.state.co.us/SurfaceWater/data/graphdata.aspx?ID=BOCBGRCO&MTYPE=DISCHRG.</p> <p>¹⁹ The Executive Summary of the Draft Report is available at http://co.grand.co.us/GCHome/April-2008/Report%20Draft_043008.pdf.</p>	<p>Comment #1195-4 (ID 4907):</p> <p><i>Alternatives The examination of project alternatives is the "heart of the environmental impact statement." 40 C.F.R. 1502.14. The Corps is required to examine all reasonable alternatives under the National Environmental Policy Act ("NEPA") and all practicable alternatives under the Corps guidelines. DEIS p. 2-1. The DEIS is to recommend the least environmentally damaging practicable alternative. 40 C.F.R. 2030.10(a). The Corps' examination of project alternatives is systematic and thorough, although I believe it is inappropriately restricted by the Corps' focus on developing new infrastructure and large water storage projects. In particular, I fail to understand the reasoning of the LP2 criteria of Screen 1A of the DEIS. The Corps states that a project alternative will only advance past this screen if the alternative involves storage of "at least 15,000 AF in a surface impoundment." DEIS p. 2-6, Table 2-1. The rationale provided by the Corps for this criteria is that this minimum storage amount "is needed to reduce the number of possible storage elements to a manageable and practical combination." DEIS p. 2-6, Table 2-1. If the Purpose and Need statement were more properly focused (i.e., "to meet Denver Water's reasonable 2030 water supply demands"), I believe that the Corps must also consider smaller storage projects, agricultural transfers, and aggressive conservation. Even with the existing Purpose and Need statement, I find it unacceptable that the Corps will only be considering solutions to perceived water supply shortages that involve construction of large-scale surface impoundment facilities. This single criteria eliminated 94 potential components or water sources for meeting the stated purpose and need. DEIS p. 2-9, Table 2-3. Certainly there are reasonable and practicable alternatives to meeting a water shortage of 18,000 AF without building large, expensive surface reservoirs that hold at least 15,000 AF of water.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">Thank you for considering my comments on the Moffat Collection System Project DEIS. If you have any questions or concerns, please don't hesitate to contact me at (970)217-9157. I look forward to reviewing the final EIS and records of decision as they become available.</p> <p style="text-align: center;">Sincerely,  Derek L. Turner</p>	<p><i>Additionally, I am not persuaded in the least that Denver Water, the largest and perhaps most advanced and complex water supply agency in the state, is incapable of managing a number of new storage sites. This criteria alone eliminates a huge number of reasonable and practicable alternatives that involve localized small-scale impoundments that would greatly reduce environmental impacts, reduce evapotranspiration, and would probably be less costly than other alternatives that advanced in the screening process. I urge the Corps, a government agency that should be focusing on new and innovative ways to address the increasingly complex climatologic and environmental problems we face, to reconsider including the LP2 criteria in the IA screening process. I am pleased that the Corps and Denver Water identified a number of alternative small scale methods of increasing firm-yield water supplies, such as gravel pit storage and conversion of agricultural water rights. However, I believe that these elements were improperly screened out and the five alternatives selected for further review in the DEIS are all essentially identical. Each of the five involves enlargement of Gross Reservoir by at least 52,000 AF, with a range up to 72,000 AF. DEIS p. 2-19. Although I recognize the cost savings and lower impact of enlarging an existing reservoir rather than building new storage, I believe that the Corps improperly restricted the alternatives analysis in the screening process such that the five alternatives are essentially identical. As mentioned above, I believe that smaller-scale storage, such as abandoned gravel pits, coupled with a purchase of agricultural water rights and conservation measures, could be an effective method of meeting Denver Water's 2030 needs. In particular, Screen 2 of the analysis identified only the possibility of 3000 AF of firm-yield through purchase of agricultural water rights. DEIS p. 2-18, Table 2-6. I find it hard to believe that Denver Water is not willing to consider agricultural water rights purchases and transfers to solve its water needs over the next twenty years.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Further, there will certainly be more than 3000 AF of water reasonably available for acquisition by Denver Water through transfers by the year 2030. Thus, I believe the Corps screening process improperly failed to consider the likelihood that significant quantities of water will become available from agricultural water purchases and transfers. Although I believe that the Project's need is overstated due to an underestimate of future water savings through conservation, I also believe that all project alternatives unacceptably include large diversions from west slope streams. The negative effects on stream health and the total decimation of several streams with viable trout populations outweigh the cost savings of the proposed Project alternative. Thus, I urge the Corps to consider adopting aspects of the other alternatives, such as gravel pit storage and agricultural water rights conversion as discussed above, so that the total amounts diverted from the west slope may be reduced to save some of these streams and habitats scheduled for destruction. If the Corps continues to recommend the Proposed Project Alternative, I believe that the negative impacts of this alternative must be reduced through mitigation or through Project operation, and I urge the Corps to address these impacts in the final EIS.</i></p> <p>Response #1195-4: The alternative screening process (Alternatives Screening Report, Corps 2007) did consider the other water sources (agricultural water transfer, conjunctive use and municipal reuse) in combination with storage components other than Gross Reservoir. These various water sources and 29 storage components from the "long list" passed the initial Screen 1A, as discussed in Draft Environmental Impact Statement (DEIS) Section 2.1.2, Screen 1B. Two methods of acquiring agricultural water (ID 601) were reviewed: purchase or dry-year lease. It was assumed that the agricultural rights were available downstream of the Metro Wastewater Treatment Plant (WWTP).</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Other locations, including the Arkansas River Basin, were considered in Screen 1A; however, they were eliminated by the Criterion LG1, "Must be Within the State of Colorado and in the South Platte and Mainstem Colorado River Basins." The justification for this criterion, as stated in FEIS Table 2-1, is still valid: "Exploring options outside the South Platte and mainstem Colorado river Basin would necessitate acquiring water rights from new filings, purchasing and transferring existing water rights, and developing extensive new infrastructure to import the water. Obtaining water from the Gunnison, Yampa, White, North Platte, Rio Grande, San Juan/Dolores, or Arkansas river basins would be extremely difficult, if not impossible, in a timeframe consistent with the Purpose and Need." This is also a reasonable criterion to use because it did not eliminate a significant number of the water source options being considered in the screening.</p> <p>Numerous alternatives were configured in Screen 1b that do not include expansion of Gross Reservoir. Leyden Gulch Reservoir, plus several other storage components such as Ralston Reservoir, Spring Creek Reservoir, and Box Elder shallow aquifer were used to configure Project alternatives. Refer to Alternatives 6a and 6b, 7a and 7b, 8b, 9a and 9b, 10b–10e, 11a, 12a, and 13b in FEIS Table 2-4. Each of these alternatives was legitimately screened out in Screen 1c or Screen 2 for various reasons. The multi-step process of screening a variety of water sources other than Moffat Tunnel water and storage components other than enlarging Gross Reservoir is justified and well-documented.</p> <p>Approximately 20% of the total yield requirement was selected because providing a yield in one year out of four of at least 15,000 AF (3,750 AF/yr is approximately 20% of 18,000 AF/yr). If an alternative provides less than 15,000 AF once in four years or less than 3,750 AF/yr it was screened out. This criterion was primarily used to screen out water supplies as opposed to storage</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>components. For example, new water supplies in the Cache La Poudre, Big Thompson, St. Vrain, Clear Creek, and lower South Platte basins were eliminated because these basins are generally over-appropriated and new water rights would likely not yield 3,750 AF/yr or 15,000 AF once in four years. For Screen No. 1, storage sites in these basins were screened independently of water supplies. For the water supplies that passed Screen No. 1, refer to FEIS Table 2-9. Storage would also be required to provide firming and regulation to deliver the water when needed during droughts. Based on a storage-to-firm yield ratio of 4:1, it would require five reservoirs of 15,000 AF to provide the 72,000 AF of storage required to meet the Purpose and Need. Incorporating that many surface storage sites into an alternative is probably too complex to reasonably implement and manage. However, with this minimum storage volume, sufficient flexibility remains to consider components that might possibly be combined into a reasonable alternative in a subsequent screening phase.</p> <p>The Corps conducted a detailed alternative screening process for the Moffat Project that considered over 300 water sources and infrastructure structural components (Alternatives Screening Report, Corps 2007) including agricultural water transfer, municipal reuse, and various storage locations. Additionally, small scale impoundments (i.e., gravel pits) were evaluated as a portion of the storage needs in the Environmental Impact Statement (EIS) as part of Alternatives 8a and 13a. Alternative 13a consists of a combination of water supplies derived from agricultural water right transfers and Denver Water's Moffat Collection System. There are many factors, in addition to cost, which affect the amount of water that could be provided by agricultural water rights transfers. The availability of agricultural water rights and gravel pit storage to firm that supply are two key limiting factors that affect the amount of water that could potentially be derived from this supply. Generating 3,000 AF/yr of firm yield from agricultural supplies would</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>require that almost 25 % of the remaining uncommitted shares in four major ditch systems, which are in the vicinity of available gravel pit storage, be purchased. The ability to purchase a significant portion of the shares in these ditches is uncertain because of the competitive market for agricultural water rights and there is no guarantee there would be an adequate number of willing sellers under these ditch systems. The configuration of Alternative 13a is reasonable, considering the uncertainties regarding the availability and location of agricultural water rights and the complexities of treating the lesser quality water and disposing of the treatment residuals.</p> <p>Denver Water's Conceptual Mitigation Plan is provided in FEIS Appendix M.</p> <p>Comment #1195-6 (ID 4906): <i>I am primarily concerned with the Project's negative impacts on streamflow and aquatic habitat degradation on the west slope streams affected by the Project. First, I believe that the presentation of impacts in the DEIS is flawed because the Corps failed to adequately present streamflow data needed to determine the actual effects on the environment. The health of a stream's aquatic environment is nearly wholly dependent on the availability of water. By presenting streamflow data in average monthly flow, a single day of zero or very low flow could be masked in the numbers. That single day of zero or very low streamflow could totally decimate the aquatic ecosystem. Trout and the symbiotic environment that makes up the aquatic ecosystem need a minimum streamflow every day. I encourage the Corps to present streamflow data in daily format to enable the public to more adequately analyze the impacts of the Project on these streams.</i></p> <p>Response #1195-6: A combination of daily and monthly hydrologic data was used for evaluations of resources dependent on flows or</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>reservoir storage contents and levels. Average monthly and annual summaries of stream flows, diversions, reservoir contents, surface elevations, and surface areas for average, wet, and dry conditions were used to support general characterizations of hydrologic changes associated with each Moffat Project alternative. Daily data were used in resource assessments where the magnitude or value of the resource is especially sensitive to daily hydrologic changes and where the use of average, wet, and dry monthly values would mask the severity of the effects on those resources. Daily data was utilized to evaluate effects on several resources, including surface water, aquatic resources, stream morphology, recreation, floodplains, riparian and wetlands areas, wildlife and special status species, and water quality (see DEIS Section 4.1, subheading Use of Daily and Monthly Platte and Colorado Simulation Model [PACSM] Data for Resource Evaluations). Daily data were used to generate flow duration curves and daily hydrographs, and to determine the frequency and magnitude of daily flow changes (see DEIS Appendices H-4, H-5 and H-6).</p> <p>FEIS Sections 4.6.11 and 5.11 used daily hydrology in all the fish habitat simulations for the mainstem and larger tributary sites. Daily hydrology was also available for evaluation in the smaller tributaries.</p> <p>Comment #1195-5 (ID 4905): <i>Second, I believe that the brief discussion of Flushing Flows presented at pp. 4-314 to 4315 is inaccurate and biased. The discussion of the benefits of high spring flows is very brief and limited. These benefits are termed merely "important aspect[s] of flow regimes." DEIS p. 4-314. However, the discussion following this brief sentence includes two full paragraphs discussing the negative impacts of flushing flows on the aquatic habitat. Although fish and other aquatic species can indeed be harmed by high spring flows, these ecosystems have evolved over millions of years with a yearly cycle of high</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>flow in the spring. Dismissing such high flows as a "disturbance that reduces populations of fish and invertebrates" seems to suggest that the Corps analyzed the impacts of Project's diversions from a biased perspective: that eliminating or reducing yearly spring flushing flows needed for ecosystem maintenance is actually be beneficial for the aquatic habitat, and weighs in favor of diverting more water during May, June and July. DEIS p. 4-314.</i></p> <p><i>The Corps cites a number of studies suggesting that there are negative impacts on habitat from these flows, but cites just a few studies in its two-sentence discussion of the benefits of these flows for maintaining the substrate of mountain streams. DEIS p. 4-314. I believe that this discussion of spring flushing flows is inaccurate and improperly biased towards in order to persuade the public that increased diversions of these streams will not impact the stream environment.</i></p> <p>Response #1195-5: The discussion of flushing flows in the DEIS and FEIS is intended to identify the conflicting benefits and costs of high flows. The intent was not to diminish the long-term beneficial results of high flows to sediment transport and channel maintenance. The intent was to discuss the short-term costs of high flows to habitat availability for fish and invertebrates. Many times there is a presumption that more water is always better and that high flows have no effect on aquatic organisms. Habitat relationships for streams in the Project area as well as streams throughout Colorado typically indicate that intermediate flows provide the highest habitat availability for fish and that higher and lower flows result in depth and flow velocity conditions that are less beneficial for fish. This fact doesn't imply that a constant level of flow (flat lining) is beneficial, desired, or necessary for a healthy fish and invertebrate community, but rather indicates that fish and aquatic organisms are under more stress in the short term at the higher and lower ends of</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>the range of flows in a stream even if there are long-term benefits to habitat maintenance. Since the flushing flow discussion is included for aquatic biological resources in FEIS Section 5.11, the discussion focused on habitat availability and consequences to fish and invertebrates and not on effects to channel maintenance. This is a matter of focus and not of bias.</p> <p>The impacts of the Project to sedimentation and channel maintenance are discussed in FEIS Sections 4.6.3 and 5.3 (Geomorphology), not in Sections 4.6.11 and 5.11 (Aquatic Biological Resources). The results of the geomorphological evaluations were taken into account in the evaluation of impacts to aquatic resources. In cases where there would be negative impacts to channel maintenance and sedimentation, this was considered to be a negative impact to aquatic organisms as well and was taken into account in the biological evaluation. However, in cases where the channel maintenance functions indicated no impacts, then the short-term consequences of changes in flow on habitat availability for fish and invertebrates would be more important and was the main focus of the impact evaluation. In this manner, the impacts of the Project incorporate both the benefits and costs of high flows.</p> <p>Comment #1195-10 (ID 4904): <i>I was dismayed to learn that many of the streams on the west slope affected by the Project already run dry in most years due to historic Denver Water diversions. I was aware that Denver Water's diversions of Fraser River tributary streams were substantial; I did not know that West St. Louis Creek, East St. Louis Creek, Fool Creek, North Fork Ranch Creek, and South Fork Ranch Creek all currently run dry below their diversions in average years. DEIS p. 3-225 to 3-231. According to American Rivers, the Fraser River system already sees 65% of its water diverted by Denver Water.[13] The biological samplings of the remainder of these high-altitude streams originating in the James Peak, Indian</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Peaks, and Byers Peak wilderness areas are absolutely teeming with fish, including several streams with genetically pure Colorado River cutthroat trout populations. DEIS p. 3-231. This suggests that these streams are prime trout habitats, limited only by the availability of water due to many historical Denver Water diversions. Thus, the environmental baseline for comparison to alternatives appears to be a significantly affected environment. Because of this, I urge the Corps to consider reducing further impacts to these streams and consider that many of these streams are already near a tipping point, unable to sustain additional diversions in the amounts proposed. FOOTNOTE: [13] American Rivers, America's Most Endangered Rivers of 2005, available at http://www.americanrivers.org/assets/pdfs/mer-past-reports/AR_MER_20054625.pdf.</i></p> <p>Response #1195-10: Council on Environmental Quality (CEQ) interprets the National Environmental Policy Act of 1969, as amended (NEPA) regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the action and its alternatives may have a continuing, additive and significant relationship to those effects (CEQ Guidance on the Consideration of Past Actions in Cumulative Effects Analysis, June 24, 2005). The environmental analysis required under NEPA is forward-looking, in that it focuses on the potential impacts of the proposed action that an agency is considering. Thus, review of past actions is required to the extent that this review informs agency decision-making regarding the proposed action.</p> <p>The Corps considered that past water-related actions, such as impoundments and diversions, have affected the Colorado River and are accounted for in the analysis of Current Conditions (2006). A list of past projects was</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>catalogued in DEIS Section 5.2. These projects were included in the PACSM to sufficiently account for and represent past actions. In addition, effects of past actions on existing flows were accounted for and disclosed in DEIS Section 3.1.</p> <p>The Corps provided additional information on past actions in FEIS Section 4.2. This was accomplished by qualitatively assessing the environment approximately 200 feet upstream and downstream of representative Denver Water diversions. The upstream conditions were meant to coincide with pre-diversion conditions. A combination of streams with and without bypass flows were evaluated (e.g., St. Louis Creek, Jim Creek, etc.) using historic photograph documentation and aerial photography.</p> <p>Additionally, FEIS Section 3.1.5 was expanded to include a discussion of virgin flows and the percentage of monthly virgin flows in the Fraser and Williams Fork river basins diverted by Denver Water. This allows the reader to compare the percentage of natural flows with past diversions at each of Denver Water's diversion locations modeled in PACSM under Current Conditions (2006), Full Use of the Existing System, and for Full Use with a Project Alternative (2032). Additional discussion of the affected environment related to water quality, 303(d) listings, and discharge permits is included in FEIS Section 3.2.</p> <p>FEIS Chapter 4 was revised to present the total environmental effects of the Moffat Project alternatives in combination with other reasonably foreseeable future actions (RFFAs). FEIS Section 4.2.1 discusses the past water-based actions in the streams in the Project area. FEIS Chapter 4 includes a comparison of Current Conditions (2006) and Full Use with a Project Alternative (2032) as described below.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Current Conditions (2006) reflects the Denver Water-related current administration of the Colorado and South Platte river basins, demands, infrastructure, and operations under the Current Conditions (2006) scenario. Denver Water's existing average annual demand is 285,000 AF/yr.</p> <p>Full Use with a Project Alternative (2032) reflects conditions in Denver Water's system when the Moffat Project is completed and in full use in 2032. This scenario reflects each action alternative in combination with other RFFAs. Under this scenario, Denver Water's average annual demand would be 363,000 AF/yr and the Moffat Project would be providing 18,000 AF/yr of new firm yield.</p> <p>Total environmental effects due to future Moffat Project diversions in combination with other RFFAs was based on a comparison with modeled Current Conditions (2006), which reflect Denver Water diversions that are indicative of the current administration of the river, demands, infrastructure, and operations.</p> <p>Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>Comment #1195-17 (ID 4943): <i>I am concerned that these diversions of an already depleted Fraser River system may take the entire aquatic habitat past the tipping point needed to maintain a healthy mountain river. Due to Denver Water's proposal for additional Fraser River system diversions, Fraser River was named by American Rivers to be the third-</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>most endangered river in the United States in 2005.[14] Because of chemicals and sediment constantly introduced to the river system by road maintenance crews during the winter ski-season, the Fraser River is already at a minimal and critical level for diluting the magnesium chloride and flushing the traction sands that run off Highway 40 into the river system.[15] The proposed alternative will result in a reduction of Fraser River streamflow below the diversion by 68% and 45% of average in May and June, respectively. DEIS Appendix p. H3-2. In a river already over-depleted by Denver Water diversions - a river that the tourist economy of Grand County depends on - these are significant diversions that will likely have immediate and irreversible catastrophic effects on the Grand County human environment. These diversions would increase water temperature, chemical concentrations, and sediment deposition; changes that would have dangerous effects downstream in the Colorado River. FOOTNOTES: [14] Id. at 12 [15] Id.</i></p> <p>Response #1195-17: Additional water quality analysis was performed for the Fraser River. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>Comment #1195-12 (ID 4942): <i>Other diversions in the proposed alternative would have even more devastating impacts on the aquatic ecosystems of the smaller tributaries involved, in</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>average water years. Of particular note, St. Louis Creek is to be reduced 100% in October, December, January, and February, and 91% (March). DEIS Appendix, p. H3-B. Essentially, Denver Water will be diverting the entire stream in average years. And according to the biological studies, St. Louis Creek has 5,231 fish per hectare, obviously a thriving ecosystem suitable for trout. I find this loss of a healthy watershed ecosystem to be unacceptable, given other reasonable alternatives for meeting Denver's water demands.</i></p> <p>Response #1195-12: The diversion rates for Saint Louis Creek in this comment are incorrect. Diversions would be much smaller than indicated in the comment and there is a bypass flow on Saint Louis Creek. There would be no impact in Saint Louis Creek from the Project.</p> <p>This comment apparently refers to St. Louis Creek Tributaries rather than St. Louis Creek itself. The tributaries, all small streams that are fully diverted for much of the year, do not support fish at present. The additional diversions would have an adverse impact from the Project.</p> <p>Comment #1195-14 (ID 4941): <i>The proposed alternative also will divert 100% of the streamflow in average years of King Creek, Middle and South Fork of Ranch Creek, Steelman Creek, Bobtail Creek, Jones Creek, and McQueary Creek. DEIS Appendix pp. H3-15 to H3-27. Although many of these creeks are without trout populations (mainly because they already run dry below existing diversions), it is painful to read and to comprehend the enormous and permanent changes that this Project will reap on the human environment. Grand County is an important national and international tourist destination and a backyard recreational destination for us Front Range denizens. After the Mono Lake/Owens Valley experience of California, many assumed that the days of cities</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>diverting entire watersheds for domestic consumption are over. If Denver Water is allowed to proceed with this proposed project alternative, it appears that many of Colorado's own streams will meet the same fate.</i></p> <p>Response #1195-14: Please see the response to Comment ID 4911.</p> <p>Comment #1195-11 (ID 4940): <i>Other creeks with significant diversions include many small tributaries of the Fraser River. Cub and Buck Creeks are to be reduced 90% (May) and 52% (June). Jim Creek is to be reduced 92% (May) and 46% (June). Cooper Creek is to be reduced 97% (May) and 66% (June). Little Vasquez Creek is to be reduced 97% (May), 60% (June), 39% (July), and 50% (August). Elk Creek is to be substantially reduced nearly year-round, including 62% (November), 70% (December), 85% (January), 80% (February), 62% (March), and 87% (May). DEIS Appendix pp. H3-3 to H3-B. Many of these streams have significant and growing trout populations below the diversions, documented by the DEIS. These populations are at risk of complete eradication due to these enormous diversions. In the final EIS for the Project, I urge the Corps to fully disclose to the public that the Project will likely reduce trout population numbers significantly in these stretches, and that this reduction in trout population will undoubtedly affect the upstream reaches of these streams into the James Peak, Indian Peaks, and Byers Peak wilderness areas.</i></p> <p>Response #1195-11: The EIS discusses flow changes and diversions with the Project and the potential impacts to habitat for aquatic life and fish populations in these tributaries. The wilderness areas are far upstream of the diversions and would not have impacts from the Project. Mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1195-7 (ID 4939): <i>Further, because these diversions are presented as reductions in average annual flow in the DEIS discussion of Surface Water Environmental Consequences to River Segment (DEIS Section 4.1.1.2), the Corps masks the Project's actual impacts on these streams. In several months, the Project will not divert additional water. With three months of 100% flow diversion, the average annual reduction could be much lower, around 20-30%. Thus, I believe the DEIS is flawed in that the average reader will not readily discover that Denver Water intends to remove whole streams from their beds to deliver to Denver lawns. One must go to Volume 5 of the DEIS (out of 6 total volumes) to discover this.</i></p> <p>Response #1195-7: Stream flow and diversion data included in DEIS Section 4.1 is presented in multiple formats (daily, monthly and annual) to display the frequency, magnitude and timing of flow changes anticipated with the proposed Moffat Project on-line. A combination of daily and monthly hydrologic data was used for evaluations of resources dependent on flows or reservoir storage contents and levels. Average monthly and annual summaries of stream flows, diversions, reservoir contents, surface elevations, and surface areas for average, wet, and dry conditions were used to support general characterizations of hydrologic changes associated with each Moffat Project alternative. Daily data were used in resource assessments where the magnitude or value of the resource is especially sensitive to daily hydrologic changes and where the use of average, wet, and dry monthly values would mask the severity of the effects on those resources. Daily data was utilized to evaluate effects on several resources, including surface water, aquatic resources, stream morphology, recreation, floodplains, riparian and wetlands areas, wildlife and special status species, and water quality (see DEIS Section 4.1, subheading Use of Daily and Monthly PACSM Data for Resource Evaluations). Daily data were</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>used to generate flow duration curves and daily hydrographs, and to determine the frequency and magnitude of daily flow changes (see DEIS Appendices H-4, H-5, and H-6). It is not practical to present all the daily output used for resource evaluations in the EIS due to the extent of the study area and the number of locations evaluations as well as the length of the study period (over 16,400 days).</p> <p>At times, Denver Water diverts all the stream flow from tributaries in the Fraser River Basin that do not have minimum bypasses. This results in no stream flow for some distance below the diversions. This is how Denver Water has operated in the past and plans to operate in the future. Additional information was included in FEIS Sections 4.6.1 and 5.1 on the increased frequency and duration that stream flows would be reduced to minimum U.S. Forest Service (USFS) bypass flows and tributaries without bypass requirements would be dried up.</p> <p>Comment #1195-9 (ID 4938): <i>I also encourage the Corps to consider that the unappropriated water in these western slope streams is needed to maintain a healthy flow cycle for the aquatic environment. The health of the watershed depends on the yearly spring flushing flows that come with runoff to clear the stream of sediments and deposit. Diverting the remaining unappropriated spring flows will have immediate adverse effects on the overall health of the watersheds of the west slope. Without allowing for a yearly spring flush, the entire ecosystems comprising these watersheds may be changed permanently. Thus, I urge the Corps to consider a mitigation proposal allowing for a single, 24-hour period of high spring flushing flows once yearly to clear the stream of sediment and maintain the healthy balance of the normal yearly streamflow cycle.</i></p> <p>Response #1195-9: Please see the response to Comment ID 4937.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1195-8 (ID 4937): <i>In sum, I have a number of problems with both the presentation of streamflow impacts as well as the actual impacts that the Corps has selected for the preferred project alternative. I believe that streamflow data should be presented in a daily format to more accurately determine adverse effects on the health of the aquatic ecosystem. Moreover, discussion of streamflow reductions in average annual flow conveniently masks the fact that the Project fully intends to substantially reduce the streamflow of the Fraser River and most of its west slope tributaries. The Project also will effectively eradicate entire watershed fisheries, notably that in St. Louis Creek. I urge the Corps to reconsider allowing these significant and destructive environmental impacts on the human environment in Grand County. Alternatively, I urge the Corps and Denver Water to adopt a mitigation plan or operating agreement to allow a yearly 24-hour period of high spring flows to provide these ecosystems with a needed flushing and at least maintain a semblance of the historic aquatic streamflow cycle.</i></p> <p>Response #1195-8: Regarding the presentation of stream flow data please see the response to Comment ID 4939.</p> <p>High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cubic feet per second (cfs) versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, Indicators of Hydrologic Alteration (IHA) was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the right-of-way (ROW) agreements with the USFS.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>DEIS Section 4.9 and FEIS Sections 4.6.11 and 5.11 indicate that the fishery in St. Louis Creek and its tributaries would be similar to Current Conditions after the proposed Moffat Project with no impact to minor impacts. Many of the smaller tributaries don't support fish either upstream or downstream of the diversions.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>St. Louis Creek itself supports a fish community of brook trout and sculpins. As discussed in the DEIS and FEIS this stream has a bypass flow requirement downstream of Denver Water's diversion and the impacts associated with additional diversions under the Moffat Project is expected to be minor. The Moffat Project is not expected to eradicate the fishery in any of these streams.</p> <p>Comment #1195-19 (ID 4936): <i>I am pleased to read that the Corps and Denver Water may provide an "Additional Environmental Storage" pool of 5,000 AF in the enlarged Gross Reservoir to maintain minimum year-round flows in South Boulder Creek through Walker Ranch and Boulder. DEIS Appendix p. M-10. Two years ago, the section of South Boulder Creek from Highway 93 to Table Mesa Drive held many healthy brown and rainbow trout that pushed fourteen and fifteen inches. Many of these trout run up the river out of Baseline Reservoir to spawn upstream. Unfortunately, a fish kill in November 2008 wiped out several spawning brown trout. Apparently, the fish kill was due in part to rapid decrease in releases from Gross Reservoir dam, stranding several fish in side pools.[16] The Boulder Flycasters Chapter of Trout Unlimited recently spent several thousand dollars to construct a fish passage structure to improve spawning success.[17] I urge Denver Water and the Corps to adopt mitigation measures to provide for a minimum year-round flow of 7 cfs, as recommended by the Colorado Division of Wildlife. Doing so would protect this crucial section of habitat enjoyed by thousands of local anglers a year.</i> FOOTNOTES: [16] See http://frontrangeanglersfishingreport.blogspot.com/2008/10/rescue-mission.html; http://frontrangeanglersfishingreport.blogspot.com/2008/11/my-exchange-with-denver-water.html. [17] See Laura Snider, <i>Fish Will be Free to Swim in South Boulder</i>, Daily Camera, November 9, 2008, available at http://www.dailycamera.com/archivesearch/ci_13106351?IADID. I consider South Boulder Creek through Walker</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Ranch to be one of the finest trout streams along the Front Range due to its secluded nature (no roads run alongside the stream) and its proximity to Boulder. Yet this stream experiences very low flows through the winter months, with sections of the creek freezing up completely. Trout are left to hope for the best in the few very deep holes throughout the canyon. During this past summer, I observed that the brown trout population in this section is currently thriving and is naturally reproducing. I caught gorgeous wild and mature trout up to 16 inches and several down into the 3-4 inch range. I witnessed tiny fry in the side pools. It is clear, based on my seven years fishing this stretch, that this creek is a thriving cold-water fishery and has incredible recreational, scenic, and aquatic values that should be preserved for the public. To this end, I urge Denver Water to adopt a stream management plan that allows for more regular dam operations and streamflow release patterns. Often, flows below the dam double in volume unpredictably late in the year, only to fall back even lower only a few days later.[18] Such a plan should include either a more gradual ramping up and down of flows below Gross Dam, or an operation schedule that reduces the wild fluctuations of flows throughout the year. It is my hope that the Additional Environmental Storage pool in an enlarged Gross will assist in the maintenance of minimum winter flows, although I view the unpredictable jumps in streamflow as problematic year-round.</i></p> <p><i>FOOTNOTE: [18] For example, in 2009, flows began the year at less than 10 cfs below Gross Reservoir, spiked to near 300 cfs in February (in just a few days), dropped back down to less than 10 cfs by mid-February, spiked back to near 100 cfs a day later, and back down by the end of the month. This pattern repeated itself through the spring until stabilizing somewhat during the late summer months. However, in late August 2009, flows went from around 75 cfs up to 340 cfs in a single day, then dropped back down to just under 100 cfs a day later. Currently, this sporadic period appears to be repeating itself. Surely the trout and insect life in this canyon are as confused</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>about the flow conditions as a fisherman trying to plan a visit when for times when the flows are fishable. This info was obtained from the streamflow gauge data, available at http://www.dwr.state.co.us/SurfaceWater/data/graphdata.aspx?ID=BOCBGRCO&MTYPE=DISCHRG.</i></p> <p>Response #1195-19: The Corps notes the comment.</p> <p>Comment #1195-18 (ID 4935): <i>Additionally, I am concerned about the loss of the annual spring flushing flows that the west slope watersheds depend on for ecological health. I urge the Corps and Denver Water to consider a modification of their operation of diversionary structures on the west slope to allow at least one 24-hour period of high flows each spring. Although this is less water for less time than would be optimal for the aquatic health of these streams, a single uninterrupted high flow period would provide immeasurable benefits to these streams and the ecosystems of these watersheds. Allowing a run of the river operation for just 24 hours each spring, during high runoff, would enable the stream to clear out some of the debris and sediment, flush out areas of the streams the trout depend on for spawning and winter holding beds, and protect the yearly cycle of stream flow that the watersheds have been experiencing for millions of years. Adopting such a mitigation plan would have minimal impacts on Denver Water, as it could operate allow each creek to flush separately while maintaining diversions through Moffat Tunnel and into Gross Reservoir.</i></p> <p>Response #1195-18: Denver Water has committed to provide flushing flows in the Fraser River, St. Louis Creek, Vasquez Creek and Ranch Creek. Denver Water has also committed to forgo diversions when stream temperatures associated with low flow conditions are elevated. Refer to FEIS Appendix M for a description of the proposed mitigation</p>



Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>measures. The Corps is considering imposing such permit conditions to mitigate effects in the aquatic environment, if a permit is issued. In addition, to compliment the mitigation measures, Denver Water is committed to the Learning by Doing (LBD) Cooperative Effort to enhance the existing environment and stream flow conditions (FEIS Section 4.3.1). For example, Denver Water will work with the Management Committee of the LBD Cooperative Effort to coordinate operations of its diversion structures in an effort to provide flushing flows, enhance peak spring flows and/or augment low flows. Specific enhancements that could address low flow and flushing flows include:</p> <ul style="list-style-type: none"> • 1,000 AF annually of bypass water from the Fraser Collection System for environmental purposes. • Up to 1,000 AF annually of releases from Williams Fork Reservoir and 2,500 AF of carry over storage in Williams Fork Reservoir for environmental purposes. • Denver Water agrees not to reduce USFS bypass flows during a drought unless Denver Water has banned all residential lawn watering in its service area (Denver Water has never banned residential lawn watering). <p>FEIS Appendix M contains a Conceptual Mitigation Plan proposed by Denver Water to mitigate Project-related impacts identified in the EIS. The Corps will determine if the proposed mitigation would offset identified impacts. The final mitigation measures will be specified by the Corps as Section 404 Permit conditions, if a permit is issued.</p> <p>Comment #1195-20 (ID 4934): <i>Further, I believe that the Corps and Denver Water must coordinate proper streamflow management activities with Grand County. I encourage the Corps to examine the recommendations of Grand County stream management contained in the Grand County Stream Management</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Plan that is in development.[19] FOOTNOTE: [19] The Executive Summary of the Draft Report is available at http://co.grand.co.us/GCHome/April2008/Repof01020Draft_043008.pdf.</i></p> <p>Response #1195-20: The Grand County Stream Management Plan (GCSMP) has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), Physical Habitat Simulation (PHABSIM) data for analysis of aquatic biological resources (Sections 3.11, 4.6.11, and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Comment #1195-2 (ID 4933): <i>Thank you for considering my comments on the Moffat Collection System Project DEIS. If you have any questions or concerns, please don't hesitate to contact me at (970)217-9157. I look forward to reviewing the final EIS and records of decision as they become available.</i></p> <p>Response #1195-2: The Corps notes the comment.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1196 Tamra K. Waltemath</p>	<p style="text-align: right;">February 26, 2010</p> <p>To: Denver Water Attn: Brian Gogas Mail Code 415 1600 West 12th Avenue Denver, CO 80204</p> <p>To: Scott Franklin, Moffat EIS Project Mgr. Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>From: Tamra K. Waltemath [REDACTED]</p> <p>Re: Project #2035</p> <p>I am against the expansion of the Gross Dam Reservoir. My main concern is the impact the expansion will have on Coal Creek Canyon. I am a Coal Creek Canyon resident. I believe the traffic on Highway 72 will be a major concern. The amount of traffic estimated will deteriorate the roads and cause major delays to the residents of Coal Creek Canyon. The increased traffic will also increase the pollution in our canyon which will result in a negative impact on my quality of life. The increased traffic and pollution may also lead to a decrease in my property value. I see no benefit to the residents of Coal Creek Canyon in the expansion of Gross Dam Reservoir.</p> <p>In addition, I do not believe that the expansion of Gross Dam Reservoir is necessary. The slow down in the economy has resulted in fewer homes being built in Denver which lessens the need for more water. Also, the residents of Denver and the businesses in Denver have not done all they could do to conserve water. I believe water conservation measures have not been exhausted. Until Denver residents and businesses can no longer water their lawns or even establish new lawns, I don't think they need more water. I do not want my quality of life and my property values to decrease because of Denver's thirst for water. I don't want to be inconvenienced because Denver residents want a nice lawn. I don't have a lawn in Coal Creek Canyon and I don't think it is a constitutional right for people or businesses to have lush green lawns.</p> <p>I request that the Draft EIS Section 404 and associated FERC Hydropower License permits be denied for this project.</p> <p>Sincerely, Tamra K. Waltemath</p> <p></p> <p style="text-align: center;"></p>	<p>Comment #1196-5 (ID 2243): <i>I am against the expansion of the Gross Dam Reservoir. My main concern is the impact the expansion will have on Coal Creek Canyon. I am a Coal Creek Canyon resident. I believe the traffic on Highway 72 will be a major concern. The amount of traffic estimated will deteriorate the roads and cause major delays to the residents of Coal Creek Canyon.</i></p> <p>Response #1196-5: Denver Water met with Colorado Department of Transportation (CDOT) to discuss the potential increase in truck traffic on State Highway (SH) 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1196-4 (ID 2242): <i>The increased traffic will also increase the pollution in our canyon which will result in a negative impact on my quality of life. The increased traffic and pollution may also lead to a decrease in my property value. I see areas benefit to the residents of Coal Creek Canyon in the expansion of Gross Dam Reservoir.</i></p> <p>Response #1196-4: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on County Road (CR) 77S, SHs 72, 93, and 128, US 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During the peak construction period, about 35 trucks could</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>deliver material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site. Additionally, Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>An expanded analysis of impacts to communities surrounding Gross Reservoir is included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Comment #1196-2 (ID 2241): <i>In addition, I do not believe that the expansion of Gross Dam Reservoir is necessary.</i></p> <p>Response #1196-2: The Corps notes the comment.</p> <p>Comment #1196-3 (ID 2240): <i>The slow down in the economy has resulted in fewer homes being built in Denver which lessens the need for more water. Also, the residents of Denver and the businesses in Denver have not done d l they could do to conserve water. I believe water conservation measures have not been exhausted. Until Denver residents and businesses can no longer water their lawns or even establish new laws, I don't they need more water. I do not want my quality of life and my property values to decrease because of Denver's thirst for water. I don't</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>want to be inconvenienced because Denver residents want a nice lam. I don't have a lawn in Coal Creek Canyon and I don't think it is a constitutional right for people or businesses to have lush green lawns.</i></p> <p>Response #1196-3: Additional data was collected and analyzed for socioeconomics in FEIS Section 5.19. The socioeconomic analysis included an update of demand projections through reviewing the data used in Denver Water's current model and reviewing current population projection data from Denver Regional Council of Governments (DRCOG), Colorado Department of Local Affairs (DOLA) or other agencies, as available, to examine any differences in projected population numbers or rates between the older data and the current data.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1196-1 (ID 2239): <i>I request that the Draft EIS Section. 404 and associated FERC Hydropower License permits be denied for this project.</i></p> <p>Response #1196-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1199 Anita M. Wilks</p>	<div style="text-align: right;">Date: 2-12-2010</div> <p>ANITA M. WILKS</p> <p>REGARDING: Moffat Collection System Project #2035</p> <p>Respectfully, this letter is to <u>protest</u> the proposed expansion of Gross Reservoir and Dam. Here are just a few of the many important reasons this project should be denied.</p> <ul style="list-style-type: none"> • NOT addressed in the DEIS- There is no need for additional water supply, either now or in the future; as actual aggressive conservation efforts would eliminate any shortage, even in drought years. CEQ regulations are not followed and URS did not analyze the full range of direct, indirect and cumulative effects of the preferred alternative. • Not justified in the DEIS is the introduction of the projected contaminants this action would bring into the existing water supply. • Thousands of residents will be impacted negatively: <ul style="list-style-type: none"> • poor air quality • 24x7 noise pollution • dangerous construction traffic • destruction of wildlife habitat • complete loss of outdoor recreation • destroying road damage • Road Safety Issues were deemed negligible in the DEIS, but even with the proposed mitigation- public fatalities could be expected. All semi-trailer trucks will experience crossing over the double yellow line into on-coming traffic at every hair pin turn or switchback. Another defect in the DEIS is dismissing this issue to mitigation as CDOT has no funds to modify the roadways sufficiently to eliminate this public risk. Expecting Denver Water to provide the necessary long-term road improvements to safeguard the public safety is unwise and unrealistic. Topography of the landscape provides the natural barriers for adequate mitigation to be achieved, both on Hwy 72 and Gross Dam Road. • The water quality in the reservoir now is acceptable, but is projected by the DEIS to be negatively impacted once the proposed project is completed. This negative impact is expected to be permanent as upstream pollutants and chemistry are unknown additions, which can only be detrimental to all local fish and wildlife populations permanently. • Dynamite blasting, earth moving and tree removal at the dam site will create air and noise pollution impossible to mitigate for miles surrounding the entire area. Subsequent air pollutants promise health threats for all residents with compromised immune systems. • All recreation surrounding the project, not just at the site - will be impacted. No amount of mitigation can possibly safeguard the residents from the negative impacts. • The NO ACTION or Leyden Reservoir alternative should be chosen over expanding Gross Dam and Reservoir. <p style="text-align: right;">Signature <i>Anita M. Wilks</i></p>	<p>Comment #1199-9 (ID 5299): <i>Respectfully, this letter is to protest the proposed expansion of Gross Reservoir and Dam. Here are just a few of the many important reasons this project should be denied.</i></p> <p>Response #1199-9: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1199-2 (ID 5298): <i>NOT addressed in the DEIS – There is no need for additional water supply, either now or in the future; as actual aggressive conservation efforts would eliminate any shortage, even in drought years. CEQ regulations are not followed and URS did not analyze the full range of direct, indirect and cumulative effects of the preferred alternative.</i></p> <p>Response #1199-2: Chapter 4 of the DEIS evaluated the direct indirect effects of the Proposed Action. DEIS Chapter 5 analyzed the effects of the Proposed Action in combination with other RFFAs. Please refer to the reorganized format of the FEIS, which provides a revised baseline for more detailed discussion of Project related effects. FEIS Chapter 4 now describes the total environmental effects (the Project in combination with other reasonably foreseeable projects) that are anticipated to occur between Current Conditions (2006) and Full Use with a Project Alternative (2032). FEIS Chapter 5 describes Project-related effects between Full Use of the Existing System and Full Use with a Project Alternative (2032).</p> <p>Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1199-8 (ID 5297): <i>Not justified in the DEIS is the introduction of the projected contaminants this action would bring into the existing water supply.</i></p> <p>Response #1199-8: Every water supply has the risk of contamination. This is a known source that would continue to be used with or without the Project.</p> <p>Comment #1199-7 (ID 5296): <i>Thousands of people will be impacted negatively: - poor air quality - 24x7 noise pollution - dangerous construction traffic - destruction of wildlife habitat - complete loss of outdoor recreation - destroying road damage.</i></p> <p>Response #1199-7: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1199-6 (ID 5295): <i>Road Safety Issues were deemed negligible in the DEIS, but even with the proposed mitigation – public fatalities could be expected. All semi-trailer trucks will experience crossing over the double yellow line into on-coming traffic at every hair pin turn or switchback. Another defect in the DEIS is dismissing this issue to mitigation as CDOT has no funds to modify the roadways sufficiently to eliminate this public risk. Expecting Denver Water to provide the necessary long-term road improvements to safeguard the public safety is unwise and unrealistic. Topography of the landscape provides the natural barriers for adequate mitigation to be achieved, both on Hwy 72 and Gross Dam Road.</i></p> <p>Response #1199-6: CDOT is responsible for maintenance of the State highways such as SH 72. Boulder County is responsible for maintenance of county roads, such as CR 77S, CR 132, etc. Boulder County maintains Gross Dam Road (CR 77S) from SH 73 to the railroad tracks. Denver Water currently maintains Gross Dam Road from the railroad track crossing to Flagstaff Road. During construction, Denver Water or its contractor would be responsible for maintaining all of Gross Dam Road. Denver Water would work with Jefferson and Boulder counties to address local traffic concerns. The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Comment #1199-1 (ID 5294): <i>The water quality in the reservoir now is acceptable, but is projected by the DEIS to be negatively impacted once the proposed project is completed. This negative impact is expected to be permanent as upstream pollutants and</i></p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>chemistry are unknown additions, which can only be detrimental to all local fish and wildlife populations permanently.</i></p> <p>Response #1199-1: The DEIS contained the following statement with regard to Gross Reservoir: "The impact on water quality in Gross Reservoir is minor for the short-term and negligible for the long-term."</p> <p>Comment #1199-5 (ID 5293): <i>Dynamite blasting, earth moving and tree removal at the dam site will create air and noise pollution impossible to mitigate for miles surrounding the entire area. Subsequent air pollutants promise health threats for all residents with compromised immune systems.</i></p> <p>Response #1199-5: The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD) in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces the National Ambient Air Quality Standards (NAAQS).</p> <p>Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare. A Corps' Section 404 Permit, if issued for one of the Moffat EIS alternatives, will require that construction activities conform to Colorado State Air Quality standards. For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with applicable noise ordinances.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Air quality impacts from tree removal and residue disposal are discussed in FEIS Section 5.13.1.1. Denver Water would work with the USFS to determine the best disposal option, which may involve the use of an air curtain incinerator (ACI) onsite or grinding the trees and removing the chips. ACIs use a blower to create a high velocity air flow to a combustor box. This provides higher temperatures and longer residence time for combustion than open burning, resulting in more complete combustion and fewer particulate emissions (smoke). A recent study evaluating the effectiveness of ACIs showed ACIs to give a 23-fold reduction in in particulate matter less than 2.5 microns in diameter (PM_{2.5}) emissions over pile burns, and a 33-fold reduction over understory burns according to “Reducing PM_{2.5} Emissions through Technology” (USFS, Rocky Mountain Research Station, Fires Sciences Laboratory, Missoula, Montana).</p> <p>Comment #1199-4 (ID 5292): <i>All recreation surrounding the project, not just at the site – will be impacted. No amount of mitigation can possibly safeguard the residents from the negative impacts.</i></p> <p>Response #1199-4: The Corps has reviewed the recreation analysis and has provided additional information and revisions for clarity in FEIS Section 5.15. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project’s environmental effects according to NEPA.</p> <p>Comment #1199-3 (ID 5291): <i>The NO ACTION or Leyden Reservoir alternative should be chosen over expanding Gross Dam and Reservoir.</i></p> <p>Response #1199-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project’s environmental effects according to NEPA.</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1448 Kit Coddington</p>	<p><i>Attn: Scott Hamilton Re: Moffat Collection System Project at Gross Reservoir</i></p>  <p>In the event there is no stopping this project, what mitigations would you like to see enacted or promised before Denver Water is issued a permit?</p> <ol style="list-style-type: none"> 1) No public or construction parking allowed on the north side of Flagstaff Rd. ever; no parking allowed on the shoulders of Flagstaff and Gross Dam Rd. during and after construction. 2) Mitigations of noise from helicopters, chain saws, the cement batch plant that will run 24/7- need to ensure that decibel levels do not exceed a safe or comfortable level. Remember, we are not used to hearing ANY noise! Construction hours should be kept to the length of a normal work day so that noise does not go on all night. 3) All efforts should be made to keep stockpile areas, staging areas, construction trucks, out of sight from existing neighborhoods. 4) Dust from haul trucks and construction traffic needs to be controlled on dirt roads. Dust from concrete cutting and batch plant needs to be controlled. How will this be done and who will monitor emissions to be sure they are at safe levels? 5) Toxic releases from possible incineration of slash from the tree-cutting needs to be curbed to safe levels. Who will be monitoring this? 6) There needs to be assurances that blasting will not harm water wells in the area or be too loud, exceeding safe decibel limits. There need to be guarantees that water wells will not be damaged, and financial reparations made if they are. 7) Elk calving grounds on Winiger, which is the staging area for the tree removal plan, need to be protected. 8) NO water access by motorized vehicles off North Shore. Heavy use here would impede traffic on Flagstaff Rd. and Gross Dam Rd. in the event the reservoir is enlarged. 9) Guarantees of after-hour patrolling for untended campfires, illegal camping, and after-hours use of the reservoir, including parking, especially on the North Shore. The park closes at dusk, but cars often remain parked at the North Shore after the rangers have gone off duty. 	<p>Comment #1448-1 (ID 1375): <i>In the event there is no stopping this project, what mitigation would you like to see enacted or promised before Denver Water is issued a permit? 1) No public or construction parking allowed on the north side of Flagstaff Rd. ever; no parking allowed on the shoulders of Flagstaff and Gross Dam Rd. during and after construction. 2) Mitigations of noise from helicopters, chain saws, the cement batch plant that will run 24/7- need to ensure that decibel levels do not exceed a safe or comfortable level. Remember, we are not used to hearing ANY noise! Construction hours should be kept to the length of a normal work day so that noise does not go on all night. 3) All efforts should be made to keep stockpile areas, staging areas, construction trucks, out of sight from existing neighborhoods. 4) Dust from haul trucks and construction traffic needs to be controlled on dirt roads. Dust from concrete cutting and batch plant needs to be controlled. How will this be done and who will monitor emissions to be sure they are at safe levels? 5) Toxic releases from possible incineration of slash from the tree-cutting needs to be curbed to safe levels. Who will be monitoring this? 6) There needs to be assurances that blasting will not harm water wells in the area or be too loud, exceeding safe decibel limits. There need to be guarantees that water wells will not be damaged, and financial reparations made if they are. 7) Elk calving grounds on Winiger, which is the staging area for the tree removal plan, need to be protected. 8) NO water access by motorized vehicles off North Shore. Heavy use here would impede traffic on Flagstaff Rd. and Gross Dam Rd. in the event the reservoir is enlarged. 9) Guarantees of after-hour patrolling for untended camp fires, illegal camping, and after-hours use of the reservoir, including parking, especially on the North Shore. The park closes at dusk, but cars often remain parked at the North Shore after the rangers have gone off duty.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>10) A detailed plan for reclamation and revegetation of shoreline—including planting schedules, location, quantity, size and types of plantings. The aspen, cottonwoods and willows that will be cut should be replanted to promote tree diversity in an area already targeted by pine beetle infestations. A detailed plan for replanting disturbed soils keeping invasive weeds to a minimum.</p> <p>11) Updated mailing lists for stakeholders in the area need to be generated and used to notify residents of construction proceedings.</p> <p>12) Assurances that the new dam size is safe structurally and can withstand the blasting and added pressure generated by 125 feet of higher dam and water. This work should be documented BEFORE before permits for construction are issued.</p> <p>13) Evidence of increased conservation programs implemented by Denver for their customer base.</p> <p>14) Felled timber needs to be treated for pine beetle before it is moved to control spread of beetle infestations.</p> <p>15) Maintenance of bbq grills—weeds growing beneath the grills, and within a 10 ft. area from grills need to be mown or pulled to prevent windblown sparks from igniting them. These grills are rarely patrolled or maintained and need to be. Often fires inside them are still burning when they are abandoned, because there is no water source readily available to extinguish them.</p> <p>16) Cut trees after spring/summer nesting is over and young birds have fledged. Use hydroaxe as little as possible or ban altogether because it destroys burrowing animals homes and often their lives.</p> <p>17) Tree cutting also needs to be timed so that pine beetle larvae are not hatching or flying.</p> <p>18) Any night lighting of DW operations needs to be aimed at the ground—not up in the air.</p> <p>19) Many Denver Water fencelines are in disrepair; areas where the fence is down need to be fixed. Barbed wire in all areas except in the vicinity of the dam should be replaced with fencing that is friendlier to wildlife. We have seen elk hung</p>	<p>10) A detailed plan for reclamation and revegetation of shoreline—including planting schedules, location, quantity, size and types of plantings. The aspen, cottonwoods and willows that will be cut should be replanted to promote tree diversity in an area already targeted by pine beetle infestations. A detailed plan for replanting disturbed soils keeping invasive weeds to a minimum. 11) Updated mailing lists for stakeholders in the area need to be generated and used to notify residents of construction proceedings. 12) Assurances that the new dam size is safe structurally and can withstand the blasting and added pressure generated by 125 feet of higher dam and water. This work should be documented BEFORE before permits for construction are issued. 13) Evidence of increased conservation programs implemented by Denver for their customer base. 14) Felled timber needs to be treated for pine beetle before it is moved to control spread of beetle infestations. 15) Maintenance of bbq grills—weeds growing beneath the grills, and within a 10 ft. area from grills need to be mown or pulled to prevent windblown sparks from igniting them. These grills are rarely patrolled or maintained and need to be. Often fires inside them are still burning when they are abandoned, because there is no water source readily available to extinguish them. 16) Cut trees after spring/summer nesting is over and young birds have fledged. Use hydroaxe as little as possible or ban altogether because it destroys burrowing animals homes and often their lives. 17) Tree cutting also needs to be timed so that pine beetle larvae are not hatching or flying. 18) Any night lighting of DW operations needs to be aimed at the ground—not up in the air. 19) Many Denver Water fencelines are in disrepair; areas where the fence is down need to be fixed. Barbed wire in all areas except in the vicinity of the dam should be replaced with fencing that is friendlier to wildlife. We have seen elk hung up on these fences.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>up on these fences.</p> <p>20) The DEIS suggests that up to 15 acres of private land may have to be acquired to accommodate the expanded FERC boundary. Where is this private land located? The DEIS and the FERC project manual suggest \$10000- \$20,000 per acre as fair compensation for this land; recent market values show a 1 acre lot in Lakeshore sold for \$70,000 + , and a 4 acre lot sold for \$185,000. If any land is to be condemned, or otherwise appropriated, the landowner should get market value for it.</p> <p>21) Any use of toxic substances, epoxies, sealants used in the making, cutting, and curing of concrete, or stored at the on-site batch plant which is to be located near the reservoir water line needs to be documented and toxic releases need to be monitored in both the air and water. These releases should be deemed "not harmful" to the health of people or animals, and if they are, they should not be allowed.</p> <p>Respectfully submitted to the US Army Corps of Engineers, and copies to FERC and Denver Water on March 10, 2010 by the Lakeshore Neighborhood.</p> <p><i>c/o Kit Cunningham</i> </p>	<p>20) The DEIS suggests that up to 15 acres of private land may have to be acquired to accommodate the expanded FERC boundary. Where is this private land located? The DEIS and the FERC project manual suggest \$10000- \$20,000 per acre as fair compensation for this land; recent market values show a 1 acre lot in Lakeshore sold for \$70,000 + , and a 4 acre lot sold for \$185,000. If any land is to be condemned, or otherwise appropriated, the landowner should get market value for it. 21) Any use of toxic substances, epoxies, sealants used in the making, cutting, and curing of concrete, or stored at the on-site batch plant which is to be located near the reservoir water line needs to be documented and toxic releases need to be monitored in both the air and water. These releases should be deemed "not harmful" to the health of people or animals, and if they are, they should not be allowed.</p> <p>Response #1448-1:</p> <ol style="list-style-type: none"> 1. Parking for construction workers would occur primarily within the Federal Energy Regulatory Commission (FERC) boundary at appropriate locations (e.g., stockpile and staging areas) within the Project area. There would be no increase in permanent parking spaces, seasons and/or hours of operation, or changes to the types of activities that are currently prohibited at Gross Reservoir. During construction activities, it may be necessary for construction related equipment to park along Gross Dam Road. However, safety would be considered when selecting areas available for road side parking. Once the Project is complete, all parking restrictions currently in place would be restored. 2. Noise impacts would occur from tree removal and residue disposal at Gross Reservoir. This activity would take approximately 6 to 8 months to complete and the specific timeline for tree removal would be determined during final design with the cooperation of Colorado Parks and Wildlife (CPW) (previously called Colorado Division of Wildlife) and the USFS.

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>On-site temporary noise impacts would occur from timber harvest, yarding, and use of temporary roads. Noise levels would be similar to other construction activities and would not be expected to exceed relevant standards and guidelines. Off-site impacts would occur from trucks hauling the forest residue (ash, chips, whole trees, logs, and/or firewood) to sites where they would be disposed or sold. Roads used for access would include Flagstaff Road (CR 77) east and north of the dam, Gross Dam Road (CR 77S) from SH 72, CR 97, and CR 68, SH 72, and SH 93. Impacts are anticipated to be temporary and moderate. Denver Water evaluated several tree removal options. Limited road access to the reservoir shore, steep slopes and large rock outcrops complicate tree removal in most areas along the shoreline. Ground-based systems are proposed where roads exist or where temporary road construction is possible. Hydro-axing is proposed in the upper reaches of Forsythe Canyon due to steep slopes and heavy rock. Helicopter yarding is proposed where road access is not available or impossible to construct. The tree removal plan shows several possible landing sites for helicopters during tree removal and some of these are below the Lakeshore neighborhood. Due to the expense of using helicopters, Denver Water would keep the use of helicopters to a minimum. Denver Water would develop the final tree removal plan in cooperation with the USFS, Colorado State Forest Service, and Boulder County. Denver Water has proposed working with the USFS to identify recycling opportunities. The current Forest Management Plan is under the authority of FERC in a joint effort with the USFS. The Corps believes that Denver Water would comply with any conditions required by FERC.</p> <p>The concrete batch plant would be located at the Gross Dam staging area (on the south dam abutment) as shown on DEIS and FEIS Figure 2-3</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>and would operate from April through November.</p> <p>All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the U.S. Environmental Protection Agency (EPA), as summarized in FEIS Table 5.14-1.</p> <p>3. Several temporary staging areas have been identified at the reservoir site. Two staging areas are downstream of the dam on South Boulder Creek. Two additional staging areas would be located at the southwestern end of the dam (see Figure 2-3). The staging areas adjacent to the dam and those that would be located near the hydropower plant are associated with the proposed dam construction footprint. The concrete plant, job trailers, and equipment yard would be located there. Existing slopes would be terraced to accommodate this. All staging areas above the new high water line would be temporary disturbances and would be restored following construction.</p> <p>As stated in DEIS Section 2.3.2.1, the majority of the aggregate required to construct the raised dam would be produced on-site. The exact amount that may be needed to be imported to the site would not be known until the dam design is complete and quarry activities begin. For EIS planning purposes, it was assumed that 40% of the aggregate material, plus sand, fly-ash and concrete, would be obtained from off-site sources. Two tentative stockpile areas have been identified on the south side of the reservoir: one is adjacent to the quarry site and the other is located immediately west of the dam (see Figure 2-3). The stockpile areas would be located in areas where material mined from the quarry site can be easily transported and stored until it is used for dam construction.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>FEIS Figure 4.15-1 shows a photographic simulation of the enlarged Gross Reservoir (additional 72,000 AF) as seen from the North Shore recreation parking lot. Temporary construction activities associated with stockpile and spoil areas would create major adverse temporary direct impacts to visual resources. Recommended mitigation measures aimed to minimize impacts to visual resources are described in FEIS Section 5.17.7.</p> <p>4. As discussed in FEIS Section 5.13.7, a land development construction permit would be required from the CDPHE APCD prior to beginning the land clearing activities. The operating terms and conditions of a land development permit include a Fugitive Dust Control Plan to control emissions of particulate matter (dust). The Fugitive Dust Control Plan would define specific control measures, such as those listed in FEIS Table 5.13 9, that must be complied with by Denver Water and its contractors throughout the Project to minimize the release of fugitive dust. While a Corps' Section 404 Permit would require that construction activities conform to Colorado State Air Quality standards, the Corps would not require a compensation plan as a Section 404 Permit condition. However, it is the Corps' understanding that Denver Water is attempting to address residents' concerns.</p> <p>The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare. A Corps' Section 404 Permit, if issued for one of the Moffat EIS alternatives, would require that</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>construction activities conform to Colorado State Air Quality standards.</p> <p>For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with applicable noise ordinances.</p> <p>Concrete batch plants mix sand, aggregate, cement and water (either in a mix truck or a stationary mixer) to produce concrete. Particulate matter, consisting primarily of cement and pozzolan dust but including some aggregate and sand dust emissions, is the primary pollutant of concern. Particulate emissions from the Project's concrete batch plant would be controlled by devices such as baghouses (i.e., fabric filters used to filter exhaust air during pneumatic transfers of material). The air emissions from the concrete batch plant have been estimated and incorporated in the summary tables of construction emissions presented in FEIS Section 5.13. The concrete batch plant would be located at the Gross Dam staging area (on the south dam abutment) as shown on DEIS and FEIS Figure 2-3 and would operate from April through November.</p> <p>5. Air quality impacts from tree removal and residue disposal are discussed in FEIS Section 5.13.1.1. Denver Water would work with the USFS to determine the best disposal option, which may involve the use of an ACI onsite or grinding the trees and removing the chips. ACIs use a blower to create a high velocity air flow to a combustor box. This provides higher temperatures and longer residence time for combustion than open burning, resulting in more complete combustion and fewer particulate emissions (smoke). A recent study evaluating the effectiveness of ACIs showed the ACI to give a 23-fold reduction in PM_{2.5} emissions over pile burns, and</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>a 33-fold reduction over understory burns according to "Reducing PM_{2.5} Emissions through Technology" (USFS, Rocky Mountain Research Station, Fires Sciences Laboratory, Missoula, Montana).</p> <p>6. Blasting would occur when onsite aggregate quarries are in operation (approximately the first year of aggregate processing) and in the early phases of construction related to the dam foundation excavation. Typically the frequency of blasting is every 3 to 4 days due to the time it takes to drill the blast holes. Blasting would occur only during daylight hours, typically occurring at the end of the day shift. Safety precautions would be taken to keep unauthorized personnel away from blast areas. Blasts would be designed such that holes are appropriately spaced, loaded and stemmed to prevent air blast and excessive vibration and to limit any fly rock migrating outside of the blast zone. The blasting agent used would likely be Ammonium Nitrate Fuel Oil (ANFO), which when handled appropriately is a relatively safe and stable product used in construction and quarrying operations throughout the U.S. The blast would be designed to produce relatively low vibrations (ground motions) and blasting adjacent to the dam would be controlled to prevent any damage to the dam or the existing foundation. All blasting would be designed and overseen by a Colorado-licensed Blasting Engineer. Blasting would be designed specifically for Gross Dam and would only create ground vibrations and land motion appropriate for the dam structure to sustain. A seismograph would be used to monitor ground motions and air pressure (noise) vibrations produced from the blasting operations to ensure that acceleration thresholds are not exceeded. The land motion created from blasting dissipates rapidly from the source (i.e., the dam) and would be insufficient to collapse wells in the region.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>7. Winiger Ridge would be used as a staging area for tree removal. The main access points would include SH 72, Gross Dam Road, and across Winiger Ridge using Forest Road (FR) 359 and CR 68. Winiger Ridge is used by elk as severe winter range and winter concentration area, but is not identified as elk calving habitat (see DEIS Figure 3.7-2). Additionally, the proposed Project would inundate only the edges of Winiger Ridge and the majority of habitat would remain intact. Tree removal would be concurrent with other construction activities and would not take place during winter months. Additional information has been added to the FEIS regarding the elk migration corridor near Gross Reservoir. An analysis of displacement effects to elk during construction has also been added to the wildlife analysis in FEIS Sections 3.9 and 5.9.</p> <p>8. Motorized boating is not currently allowed at Gross Reservoir pursuant to the FERC Gross Reservoir Recreation Management Plan and Denver Water does not anticipate changing this condition. Any changes to the Gross Reservoir Recreation Management Plan, such as motorized boating, would occur during the FERC hydropower license amendment. At that time, there would be an additional opportunity for public comment to the FERC.</p> <p>9. It is assumed that existing ranger patrols at Gross Reservoir would continue under an expanded Gross Reservoir.</p> <p>10. A majority of mitigation and restoration would be staged and occur concurrently with construction activities. Some mitigation, however, would not be conducted until after construction is completed. Due to the variation of the timing of mitigation, the Corps is unable to provide a specific timeframe of these activities.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Revegetation of the cleared area above the inundation line would be done in the first appropriate season following timber removal, and there would not be a gap of several years between clearing and revegetation. Within the expanded inundation area, there could be a gap of several years between timber removal and inundation, and no revegetation would be conducted below the new high water line. Denver Water would work with the USFS to ensure that forest clearing and revegetation would be consistent with National Forest standards. Removal of trees in the new inundation area would create a temporary major visual impact until the reservoir fills, which was described in DEIS Section 4.15. The revegetation plan for Gross Reservoir would be prepared after completion of the FEIS and prior to construction for those areas above the new high water line.</p> <p>A discussion of the potential for water-borne dispersal of noxious weeds to Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.1. Although there would be unavoidable adverse effects if noxious weeds spread, efforts to control noxious weeds and to revegetate disturbed areas would use standard practices that are expected to be generally effective. DEIS Section 4.5.7 provided a summary of mitigation and monitoring requirements, and has been updated in the FEIS to include USFS requirements for Forest Service lands in the Gross Reservoir area. With the recommended mitigations, it is unlikely that noxious weeds or non-native plants would spread into undisturbed forests as a result of this Project, and impacts would generally be confined to disturbed areas. Additionally, as part of Denver Water's existing FERC hydropower license for Gross Reservoir (Article 406 – Conditions 107 and 108), Denver Water is required to submit an annual monitoring report for noxious plants. This report includes a list of the priority species and plans to</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>eradicate those species from the FERC project area (which includes lands owned by the USFS and Denver Water). These weed control efforts involve the cooperation of the USFS and Denver Water and use lists of noxious weeds developed by the USFS and the Colorado Department of Agriculture.</p> <p>11. Denver Water maintains a list of interested parties for the FERC amendment process and has obtained a mailing list from Boulder County for the residents near Gross Reservoir. Any interested party can sign-up for the distribution list by visiting Denver Water's web page (www.denverwater.org). Additionally, Denver Water and the Corps purchase advertising space in local publications informing the community of upcoming meetings and events.</p> <p>12. Please see the response to Item 6 above. Routine Federal- and State-imposed dam safety inspections are performed on the existing Gross Dam. Similarly, dam safety inspections and analyses would be conducted for an enlarged Gross Reservoir during final design. Where appropriate, general safety features were incorporated into the conceptual dam designs used for the EIS impact analysis. For example, Section 2.3.2.1 states: "In order to satisfy current dam safety criteria, the dam raise would necessitate an increased spillway capacity, improved dam safety condition, and would require the construction of a service spillway. The spillway could be located in the dam crest, a topographic saddle south of the dam or along the right abutment of the dam or some combination (Figure 2-3)."</p> <p>Denver Water would design the dam enlargement in accordance with the Colorado Rules and Regulations for Dam Safety and Dam Construction and current engineering practices, and it would be subject to a series of design reviews by Denver Water, the Colorado State Engineer's Office (SEO), FERC, and</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>an independent review panel made up of expert dam engineers approved by FERC.</p> <p>FERC and the SEO conduct annual inspections of the existing Gross Dam and FERC requires that an Independent Safety Inspection be conducted by an outside third-party consultant every five years. Denver Water's Dam Safety staff also conducts a formal inspection of Gross dam every year, and the Denver Water Engineering Manager of Dam Safety conducts periodic spot inspections.</p> <p>Additionally, Denver Water would update its current Emergency Action Plan (EAP), required by FERC and the SEO, if Gross Reservoir is enlarged, to minimize the risk of loss of life and property damage when potential emergency conditions threaten the structural integrity of a dam. The EAP describes procedures to:</p> <ul style="list-style-type: none"> • Identify unusual and unlikely conditions that may endanger the dam • Initiate remedial actions to prevent or minimize the downstream impacts of a dam failure • Initiate emergency actions to warn downstream residents of impending or actual failure of the dam. <p>The EAP provides a detailed description of the communications protocol such as who needs to be notified and what areas are likely to be flooded, among other details, in the highly unlikely event of a dam failure. Plan participants include the Boulder County Office of Emergency Management, Boulder County Sheriff, Boulder police and fire departments, Lafayette police department, Colorado State Police, State of Colorado Division of Emergency Management, National Weather Service, and many</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>others. The EAP is exercised yearly and a formal tabletop and functional exercise is conducted with downstream emergency personnel every five years.</p> <p>13. As shown in FEIS Table 1-1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand will be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF will be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A (Supplemental Evaluation of Denver Water Demand Projections, pages 9-12) and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water – and customers are on pace to meet this goal. It is anticipated that Denver Water will continue its conservation program after the 2016 goal is met, however no specific percentage after that date has yet been established. Denver Water prefers to establish goals within a shorter timeframe than 40 years to accommodate changes in water use, landscaping trends, technological innovation and population growth. Denver Water has a conservation-</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>oriented rate structure that includes a positive slope in the average price curve for all of its customers except master meter distributors. Denver Water does not have the legal authority to prescribe a rate structure to its master meter distributors, but it should be noted that similar drops in water use have been observed in master meter districts, regardless of the rate structure they use. Denver Water has a holistic suite of residential indoor/outdoor and industrial, commercial, and institutional conservation incentives. Denver Water does not currently have a landscape retrofit rebate program, but does provide incentive contracts to large irrigators to retrofit their landscape. Denver Water's current operating budget is \$251 million and it's spending on conservation programs in most years exceeds \$8 million, meaning it currently spends more than 3% of its operating budget on this program. Denver Water operates almost 3,000 miles of pipes in the treated water system and has programs to monitor and maintain the distribution piping, including leak detection, corrosion monitoring, valve testing, water quality testing, pressure monitoring and fire flow testing.</p> <p>Denver Water's leak detection program is a crucial component of conservation and system maintenance. Year-round leak programs have been in place since 1981. The current leak detection program includes system loggers and mobile sonic detection devices, which are used to survey the system and to pinpoint leaks. Denver Water has a team dedicated to leak detection tasks, with the goal of covering all pipes every 5 years. All leaks detected are repaired. Denver Water's distribution system leak and break rate is less than half the national average. Three programs for pipe renewal have been operating since at least 1960; the main replacement program, the pipe rehabilitation (cement mortar lining) program, and the system improvements program. Collectively, these programs are geared to reducing leak losses,</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>improving fire flow and water quality, minimizing interruptions, and maintaining high service standards. In 2009, the Denver Water Board approved major increases on the replacement and rehabilitation programs, and expenditures are expected to double over the next ten years. Denver Water encourages local and State governments to adopt ordinances and laws for efficient water use, however Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But it does have the power to enact water rules and enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day irrigation can occur. Denver Water and its suburban distributors are in compliance with Colorado statute 37-60-126.</p> <p>14. The forests at Gross Reservoir have not been affected by the current outbreak of mountain pine beetle in the Rockies, and have a moderate to good chance of not being affected. Therefore, it is not appropriate to forecast the potential changes in forest structure in the FEIS. Information about the relationship of the Project and mountain pine beetle has been added to the to the vegetation analysis in FEIS Sections 4.6.7 and 5.7. Furthermore, the proposed Project would not affect the current pine beetle outbreak.</p> <p>Denver Water would also work with the USFS to ensure that forest clearing and revegetation would be consistent with National Forest Standards.</p> <p>15. Installed barbecue grills include crusher fine gravel surrounding the grill to provide a non-flammable base. Over time, vegetation has encroached around some of the grills and as such, mowing, to remove flammable material, is performed as needed.</p>



Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>16. Denver Water evaluated several tree removal options. Limited road access to the reservoir shore, steep slopes and large rock outcrops complicate tree removal in most areas along the shoreline. Ground-based systems are proposed where roads exist or where temporary road construction is possible. Hydro-axing is proposed in the upper reaches of Forsythe Canyon due to steep slopes and heavy rock. Helicopter yarding is proposed where road access is not available or impossible to construct. The tree removal plan shows several possible landing sites for helicopters during tree removal and some of these are below the Lakeshore neighborhood. Due to the expense of using helicopters, Denver Water would keep the use of helicopters to a minimum. Denver Water would develop the final tree removal plan in cooperation with the USFS, Colorado State Forest Service, and Boulder County. Denver Water has proposed working with the USFS to identify recycling opportunities. The current Forest Management Plan is under the authority of FERC in a joint effort with the USFS. The Corps believes that Denver Water would comply with any conditions required by FERC.</p> <p>Nesting birds are protected under the Migratory Bird Treaty Act, and land-clearing activities would be timed to avoid the breeding season (DEIS Section 4.7.7).</p> <p>17. Please see the response to Item 14 above.</p> <p>18. In general, construction activities would occur during the day and night lighting would not be required other than for safety and security purposes. However, there may be infrequent periods during the construction phase of the Project when double or even triple work shifts would be required. Increased night lighting would be required during these infrequent periods and it would be visible from</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>surrounding nearby residences and wildlife during this construction activity. Work hours for all construction would be limited in conformance with applicable local ordinances. Following completion of construction, lighting on the raised dam would be the same as currently exists. Therefore, no long term impacts from lighting are expected.</p> <p>19. The Corps notes the comment.</p> <p>20. The private land needed, as shown in the Draft FERC amendment application, is to the south of the existing reservoir. Denver Water has contacted the landowner and is currently negotiating an agreement to take ownership of the land required for an enlargement.</p> <p>21. Denver Water and its contractor would comply with all applicable Federal, State and local regulations related to proper handling and disposal of hazardous materials. A Materials Handling Plan would be developed to identify how to properly handle and dispose of contaminated materials generated during the Project. For example, contractors would store fuel and other hazardous materials associated with construction activities away from water bodies and take appropriate precautions to avoid spilling hazardous materials or fuels during construction.</p>



Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1453 Richard M. Cole</p>	<div> <p style="text-align: center;">Moffat Collection System Project Draft Environmental Impact Statement Public Comments</p> <p>What difference can you make? Your input is an important part of the public involvement process. Your comments or suggestions on the Draft Environmental Impact Statement (EIS) will assist us in adequately identifying the public's concerns and issues. Space is provided below to write down any comments you wish the U.S. Army Corps of Engineers (Corps) to consider. You may hand in your statement at the end of the Public Hearing or, if you prefer, mail, fax or email it to the address printed below. Please print legibly.</p> <p>Name: <u>RICHARD M. COLE</u></p> <p>Address: _____</p> <p>Representing: <u>SELF AND OTHER CONCERNED STAKE HOLDERS</u></p> <p>Comments: <u>I think that the need for this project is overstated; more conservation measures by users of Denver Water and implementing of strict sustainable landscaping in new (and old) subdivisions that DWB has contracted with, could greatly lessen the predicted short fall, possibly adding surplus.</u> <u>Secondly, the draft EIS fails to account for soon to be added increases in supply and storage capacity in DWB system.</u> <u>Last, as one who has fished and floated the Fraser River and its tributaries throughout the last 25 years, I can affirm the decline in stream habitat and increase in stream temperature in these streams and Fraser R.</u></p> <p style="text-align: right;">  <u>[Signature]</u> <u>March 14, 2010</u> Signature Date </p> <p><small>Written comments must be received no later than March 17, 2010.</small></p> <p>  <small>U.S. ARMY CORPS OF ENGINEERS OMAHA DISTRICT</small> </p> <p><small>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80120 moffat_eis@usace.army.mil Fax: 303-979-0602</small></p> <p><small>To send this form, fold in half, tape closed, and add 44¢ postage.</small></p> </div>	<p>Comment #1453-2 (ID 1372): <i>I think that the need for this project is overstated; more conservation measures by users of Denver Water and implementing of strict, sustainable landscaping in new (and old) subdivisions that DWB has contracted with, could greatly lessen the predicted short fall, possibly adding surplus.</i></p> <p>Response #1453-2: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<div style="text-align: center;"> <p>TAPE HERE</p> <p>PLACE POSTAGE HERE</p> </div> <div style="text-align: center; margin-top: 20px;"> <p>Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> </div> <div style="text-align: center; margin-top: 20px;"> <p>FOLD HERE</p>  </div>	<p>Comment #1453-3 (ID 1373): <i>Secondly, the draft EIS fails to account for soon to be added increases in supply and storage capacity in DWB system.</i></p> <p>Response #1453-3: The DEIS accounted for anticipated increases in supply by using PACSM to estimate firm yield. Based on the PACSM results, Denver Water predicts that in the next 10 years, its unrestricted demand would exceed current supply, and without the addition of new firm yield an annual water supply shortage would occur. To resolve the projected shortfall, five near-term strategies are in the process of being implemented for potentially producing new firm yield and reducing demand: (1) conservation, (2) non-potable recycling, (3) system refinements, (4) cooperative projects, and (5) new supply projects. These strategies to increase Denver Water's yield have been estimated and are included in Denver Water's calculation of available supply and future shortfall (Table 1-1 of the DEIS and FEIS). With this multiple project approach, Denver Water is projecting to have sufficient supplies until 2032.</p> <p>Comment #1453-1 (ID 1374): <i>Last, as one who has fished and floated the Fraser River and its tributaries throughout the last 25 years, I can affirm the decline in stream habitat and increase in stream temperature in these streams and Fraser R.</i></p> <p>Response #1453-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1458 Jacqueline Conley</p>	<div style="text-align: center;">  </div> <p>What difference can you make? Your input is an important part of the public involvement process. Your comments or suggestions on the Draft Environmental Impact Statement (EIS) will assist us in adequately identifying the public's concerns and issues. Space is provided below to write down any comments you wish the U.S. Army Corps of Engineers (Corps) to consider. You may hand in your statement at the end of the Public Hearing or, if you prefer, mail, fax or email it to the address printed below. Please print legibly.</p> <p>Name: <u>Jacqueline Conley</u> Address: <u>[REDACTED]</u> Representing: <u>Residents on Indian Peak & in Coal Creek Canyon &</u> Comments: <u>Colpin County Democrats</u></p> <p><i>Following attendance at a seminar on this project held by Rep. Claire Levi & Denver Water Staff & reading the Environmental Group's & the Western Resource Advocate's & the Denver Water's reports - I believe this project should not be given a permit to proceed. The DEIS is based on outdated data & model. It ignores the necessity for more stringent conservation absolutely required to address the realities of water usage in a semi-arid climate to minimize environmental damage & guarantee water supplies while preserving our way of life in Colorado. Impact to residents in this mountain community are minimized. You must consider that this project will jeopardize our water aquifers & wells, our safety on Highway 12, our air quality, noise levels, wild life, plant communities & ecology by destruction of 2700-30,000 trees, blasting, hauling & flooding! The need for this project to water lawns in Denver is not justified! It is based on outdated demand supply projections & assumptions. We need conservation in Denver like the kind we practice in the mountains! We need long term planning & conservation to protect our FINITE water supply. Your environment!</i></p> <p><i>Jacqueline Conley</i> <i>March 16, 2010</i> Signature Date</p> <p><small>Written comments must be received no later than March 17, 2010.</small></p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;">  <p><small>U.S. ARMY CORPS OF ENGINEERS OMAHA DISTRICT</small></p> </div> <div style="text-align: center;"> <p><small>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 8307 S. Wadsworth Blvd. Littleton, CO 80120 moffat.eis@usace.army.mil Fax: 303-979-0602</small></p> </div> </div> <p style="text-align: center; font-size: small;">To send this form, fold in half, tape closed, and mail 44¢ postage.</p>	<p>Comment #1458-1 (ID 1376): <i>Following attendance of a seminar on this project held by Rep. Claire Levi & Denver Water Staff and reading the Environmental Group's & the Western Resource Advocate's & the Denver Water's reports – I believe this project should not be given a permit to proceed!</i></p> <p>Response #1458-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1458-2 (ID 1377): <i>The DEIS is based on outdated data & model.</i></p> <p>Response #1458-2: The model study period used in the DEIS (from 1947 through 1991) provides a broad range of average, wet, and dry flow conditions for evaluating hydrologic impacts. The potential of extending the study period and/or using additional periods for comparative analyses was considered in relation to whether these alternative hydrologic inputs would change conclusions regarding the yield of the Moffat system and/or change conclusions related to effects on hydrologic and other resource areas. With regard to inclusion of more recent hydrology, Denver Water would not divert additional water due to the proposed Moffat Project in drought years like 2002 because Denver Water would have already diverted the maximum amount of water physically and legally available under their existing water rights without additional storage in their system. Denver Water's analysis also concluded that, for Denver Water's system, the mid-1950's drought is a more severe drought period than the recent drought. In other words, given full-use water demands, supplies, and facilities, there would be less water in Denver Water's storage at the end of the 1950's drought than at the end of 2002.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<div style="text-align: center;"> <p>TAPE HERE</p> <p>PLACE POSTAGE HERE</p> <p>Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> </div> <div style="text-align: center;"> <p>FOLD HERE</p>  </div>	<p>The model study period used in the DEIS also addressed the carry-over and recovery effects of additional Denver Water diversions in wet years following dry years like 2002 and 2003. The DEIS study period includes several series of dry years followed by wet years, which illustrate the effects of increased diversions to refill storage. For example, the DEIS study period includes the mid-1950's drought followed by 1957 (a wet year), 1963 and 1964 (dry years) followed by 1965 (wet year), and 1981 (dry year) followed by several wet years in the mid-1980's. These sequences of years allow for an evaluation of impacts associated with diverting additional water in wet years following dry years.</p> <p>The model study period is suitable for estimating hydrologic effects associated with the EIS alternatives for both direct effects and cumulative effects because it includes a broad range of average, wet, and dry years, and sequences of years that include dry years followed by wet years. Extension of the modeling period to include additional dry years and more recent data would not substantially change the range of hydrologic conditions or the predicted impacts to flows as a result of the proposed Moffat Project. In summary, modifications to the modeled study period is not warranted.</p> <p>Comment #1458-3 (ID 1378): <i>It ignores the necessity for more stringent conservation absolutely required to address the realities of water usage in a semi-arid climate to minimize environmental damage & guarantee water supplies while preserving our way of life in Colorado. Impact to residents in this mountain community are minimized.</i></p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1458-3: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1458-4 (ID 1379): <i>You must consider that this project will jeopardize our water aquifers & wells, our safety on Hiway 72, our air quality, noise levels, wild life, plant communities & ecology by destruction of 20-30,000 trees, blasting, hauling, & flooding!</i></p> <p>Response #1458-4: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1458-5 (ID 1380): <i>The need for this project to water lawns in Denver is not justified! It is based on outdated demand & supply projections & assumptions. We need conservation in</i></p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Denver like the kind we practice in the mountains! We need long term planning & conservation to protect our FINITE water supply & our environment!</i></p> <p>Response #1458-5: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1465 Timothy Hodsdon</p>	<div style="text-align: center; background-color: #0070C0; color: white; padding: 5px; margin-bottom: 10px;"> Moffat Collection System Project Draft Environmental Impact Statement Public Comments </div> <p style="font-size: small;">What difference can you make? Your input is an important part of the public involvement process. Your comments or suggestions on the Draft Environmental Impact Statement (DEIS) will assist us in adequately identifying the public's concerns and issues. Space is provided below to write down any comments you wish the U.S. Army Corps of Engineers (Corps) to consider. You may hand in your statement at the end of the Public Hearing or, if you prefer, mail, fax or email it to the address printed below. Please print legibly.</p> <p>Name: <u>TIMOTHY HODSDON</u> Address: [REDACTED] Representing: <u>SELF</u> Comments:</p> <p><u>I WORK WITH A LOCAL SUSTAINABLE COMMUNITIES GROUP CALLED INFINITE WEST. ON BEHALF OF THAT GROUP, I WOULD RECOMMEND AN EXTENSION OF THE TIME GIVEN TO DISCUSS THIS ISSUE, BY A MINIMUM OF 45 DAYS. THIS IS A SERIOUS ISSUE, AND OUR ORGANIZATION REQUIRES MORE TIME TO STUDY IT AND MAKE EDUCATED RECOMMENDATIONS TO OUR MEMBERS.</u></p> <p><u>ON MY OWN BEHALF, I WOULD COMMENT AS A GRAND COUNTY RESIDENT WITH A SECOND HOME IN DENVER. BECAUSE OF HOW WE BECAME TO BE AN EXCESSIVE WATER USER IN THIS HOME, WE RE-LANDSCAPED OUR YARD TO USE 75% LESS WATER THAN IT HAD WHEN WE BOUGHT THE HOME. WE DID THIS WITH SOME STRATEGIES, CHANGING A YARD THAT CONSISTED OF 95% PESCUE TO ONE THAT CONSISTED OF MOSTLY HARDSCAPE, XERISCAPE, WITH EVEN SOME GRASS. THE POINT BEING THAT IT TOOK VERY LITTLE EFFORT TO REDUCE OUR CONSUMPTION BY A SIGNIFICANT AMOUNT.</u></p> <p><u>IT IS MY BELIEF THAT THE CITY OF DENVER AND SURROUNDING COMMUNITIES NEED TO MANIPULATE AGGRESSIVELY LESS WATER USE. I BELIEVE THAT THE CORPS OF ENGINEERS SHOULD NOT ALLOW THE MOFFAT FIRMING PROJECT TO MOVE FORWARD. FRONT RANGE COMMUNITIES WILL ONLY PROVIDE THESE AGGRESSIVE CONSERVATION EFFORTS IF THEY HAVE TO.</u></p> <p style="text-align: right;">  Date: <u>12/8/2009</u> </p> <p style="font-size: x-small; margin-top: 10px;"> U.S. ARMY CORPS OF ENGINEERS OMAHA DISTRICT Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Westworth Blvd. Littleton, CO 80128 moffat.eis@usace.army.mil Fax: 303-979-0802 </p>	<p>Comment #1465-1 (ID 1370): <i>I work with a local sustainable communities group called Infinite West. On behalf of that group, I would recommend an extension of the time given to discuss this issue, by a minimum of 45 days. This is a serious issue, and our organization requires more time to study it and make educated recommendations to our members.</i></p> <p>Response #1465-1: The following is a summary of the initial public comment period time frame and subsequent extensions. A Notice of Availability of a DEIS and Public Notice announcing the receipt and evaluation of a Clean Water Act Section 404 Permit application from Denver Water for the Moffat Project was issued on October 30, 2009, which included an initial 90-day comment period (October 30, 2009 to January 27, 2010). A second Notice of Availability was issued on December 18, 2009. During the comment period, the Corps received numerous requests to again extend the comment period on the DEIS and permit application. Based on the public's need to review additional documents referenced in the DEIS, to allow ample opportunity for the public to provide substantive comments, and to facilitate a timely and efficient review process, Omaha District Commander Colonel Robert J. Ruch determined that an additional 16-day extension was warranted and reasonable. Thus, the comment period was extended to March 17, 2010, for a combined public review period of 138 days.</p>


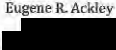

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">TAPE HERE</p> <div style="border: 1px solid black; width: 100px; height: 100px; margin: 20px auto; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; background: white; border: 1px solid black;"></div> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%);"> <div style="border: 1px solid black; padding: 2px; width: 80%; margin: 0 auto;"> <div style="border-bottom: 1px solid black; height: 10px; margin-bottom: 2px;"></div> <div style="border-bottom: 1px solid black; height: 10px; margin-bottom: 2px;"></div> <div style="border-bottom: 1px solid black; height: 10px;"></div> </div> <div style="position: absolute; top: 10px; right: 10px; font-size: 8px;"> PLACE POSTAGE HERE </div> </div> <p style="text-align: center; margin-top: 20px;"> Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128 </p> <p style="text-align: center; margin-top: 20px;">FOLD HERE</p>  </div>	<p>Comment #1465-2 (ID 1371): <i>On my own behalf, I would comment as a Grand County resident with a second home in Denver. Because of what we believed to be an excessive water use in this home, we re-landscaped our yard to use 75% less water than it had when we bought the home. We did this with simple strategies, changing a yard that consisted of 95% fescue to one that consisted of mostly hardscape and xeriscape, with even some grass. The point being that it took very little effort to reduce our consumption by a significant amount. It is my belief that the city of Denver and surrounding communities need to mandate aggressively to encourage less water use. I believe that the Corps of Engineers should not allow the Moffat Firing Project to move forward. Front Range communities will only provide these aggressive conservation efforts if they have to.</i></p> <p>Response #1465-2: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1469</p> <p>-- --</p>	<p>Conserve the water available in Denver before you move more from its natural location. Lawns can go without water to provide drinking water during droughts. Please consider the importance of preserving our natural rivers; not only for those who rely on its water but for the lives of the many species whose environments are already drastically changed by unnatural removal of water and other human-caused factors. These species may already be headed toward extinction.</p> 	<p>Comment #1469-1 (ID 1381): <i>Conserve the water available in Denver before you move more from its natural location. Lawns can go without water to provide drinking water during droughts. Please consider the importance of preserving our natural rivers; not only for those who rely on its water but for the lives of the many species whose environments are already drastically changed by unnatural removal of water and other human-caused factors. These species may already be headed toward extinction.</i></p> <p>Response #1469-1: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1605 Eugene R. Ackley</p>	<div style="text-align: center;">  </div> <div style="text-align: right;">  </div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Sir:</p> <p>I retired to Fraser in 1993 and have been a full time resident ever since. One reason I retired to Grand County was to enjoy the beautiful environment. As a fly fisherman I am aware of the increases in river temperature and sedimentation that have already been caused by Denver Water diversions. Denver Water's proposal to take even more water from the Fraser River is very troubling.</p> <p>There are many problems with the Moffat EIS, too numerous for one letter from an ordinary citizen. However, as a Grand County resident, I am very upset that the EIS included no mention of the Stream Flow Management Plan that was developed at the expense of Grand County taxpayers. Denver Water's EIS has not adequately addressed stream flow management. Using a model based on 2016 forecasts -- guesswork at best -- to project long term impacts is unacceptable. Analysis of future impacts should be based on the most up to date and current information available.</p> <p>The Moffat Firming is not the only proposal affecting the upper Colorado River: Northern Colorado Water Conservation's Windy Gap project will have an additional impact. The combined impact of these two actions will mean that only 26% of the native flows will remain in the Upper Colorado River at Hot Sulphur Springs. How low can the water level go before we have a dead river system? Cumulative impacts of these projects, including their PAST, PRESENT AND REASONABLY FORESEEABLE FUTURE IMPACTS, have been grossly misrepresented in the EIS.</p> <p>If the Corps' decision is based on the EIS as currently presented, there must be some requirement for adaptive management that requires careful monitoring and a proactive response to maintain the health of the river, along with funding for mitigation in response to needs identified by monitoring.</p> <p>The Army Corps of Engineers has a duty to the people of the United States to protect our waters. The people of Grand County demand that the disastrous impacts of the Moffat Firming Project be properly analyzed, addressed and mitigated.</p> <p>Sincerely,</p> <div style="text-align: center;">  </div> <p>Eugene R. Ackley</p>	<p>Comment #1605-1 (ID 1467): <i>I retired to Fraser in 1993 and have been a full time resident ever since. One reason I retired to Grand County was to enjoy the beautiful environment. As a fly fisherman I am aware of the increases in river temperature and sedimentation that have already been caused by Denver Water diversions. Denver Water's proposal to take even more water from the Fraser River is very troubling.</i></p> <p>Response #1605-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1605-0 (ID 1468): <i>There are many problems with the Moffat EIS, too numerous for one letter from an ordinary citizen. However, as a Grand County resident, I am very upset that the EIS included no mention of the Stream Flow Management Plan that was developed at the expense of Grand County taxpayers. Denver Water's EIS has not adequately addressed stream flow management Using a model based on 2016 forecasts -- guesswork at best - to project long term impacts is unacceptable. Analysis of future impacts should be based on the most up to date and current information available.</i></p> <p>Response #1605-0: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11, and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p>

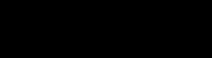


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1605-3 (ID 1469): <i>The Moffat Firming is not the only proposal affecting the upper Colorado River: Northern Colorado Water Conservation's Windy Gap project will have an additional impact. The combined impact of these two actions will mean that only 26% of the native flows will remain in the Upper Colorado River at Hot Sulphur Springs. How low can the water level go before we have a dead river system? Cumulative impacts of these projects, including their PAST, PRESENT AND REASONABLY FORESEEABLE FUTURE IMPACTS, have been grossly misrepresented in the EIS.</i></p> <p>Response #1605-3: The DEIS includes the Windy Gap Firming Project (WGFP) as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the Colorado-Big Thompson (C-BT) Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p>


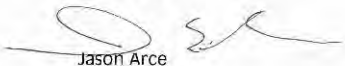

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1605-4 (ID 1470): <i>If the Corps' decision is based on the EIS as currently presented, there must be some requirement for adaptive management that requires careful monitoring and a proactive response to maintain the health of the river, along with funding for mitigation in response to needs identified by monitoring.</i></p> <p>Response #1605-4: Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>Comment #1605-5 (ID 1471): <i>The Army Corps of Engineers has a duty to the people of the United States to protect our waters. The people of Grand County demand that the disastrous impacts of the Moffat Firming Project be properly analyzed, addressed and mitigated.</i></p> <p>Response #1605-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>




Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1606 Ryan Arce</p>	<div style="text-align: center;"> <p>Ryan Arce</p>  </div> <div style="text-align: right;">  </div> <p>February 16, 2010</p> <p>U.S. Army Corps of Engineers Attn: Scott Franklin 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Denver Water Board Brian Gogas Mail Code 415, 1600 W. 12th Ave. Denver, CO 80204</p> <p>FERC Attn: Sec. Kimberly Bose 888 First St, NE Washington, DC 20426</p> <p>Re: Gross Reservoir Expansion in Arvada, Colorado</p> <p>Dear Mr. Franklin, Mr. Gogas & Ms. Bose,</p> <p>I am writing this letter to show my support for the Gross Reservoir expansion. Expanding this reservoir will increase the water storage for the area and will have the least amount of impact to the environment. This expansion should be a top priority for Denver Water.</p> <p>Thank you,</p> <div style="text-align: center;">  <p>Ryan Arce</p> </div>	<p>Comment #1606-1 (ID 1480): <i>I am writing this letter to show my support for the Gross Reservoir expansion. Expanding this reservoir will increase the water storage for the area and will have the least amount of impact to the environment. This expansion should be a top priority for Denver Water.</i></p> <p>Response #1606-1: The Corps notes the support of the Moffat Project. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1607 Jason Arce</p>	<div style="text-align: center;"> <p>Jason Arce</p>  </div> <hr/> <p>February 16, 2010</p> <div style="display: flex; justify-content: space-between;"> <div> <p>U.S. Army Corps of Engineers Attn: Scott Franklin 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Denver Water Board Brian Gogas Mail Code 415, 1600 W. 12th Ave. Denver, CO 80204</p> <p>FERC Attn: Sec. Kimberly Bose 888 First St, NE Washington, DC 20426</p> <p>Re: Cross Reservoir Expansion in Arvada, Colorado</p> <p>Dear Mr. Franklin, Mr. Gogas & Ms. Bose,</p> <p>I am writing this letter to show my support for the Gross Reservoir expansion. Expanding this reservoir will increase the water storage for the area and will have the least amount of impact to the environment. This expansion should be a top priority for Denver Water.</p> <p>Thank you,</p> <div style="text-align: center;">  Jason Arce </div> </div> <div>  </div> </div>	<p>Comment #1607-1 (ID 1481): <i>I am writing this letter to show my support for the Gross Reservoir expansion. Expanding this reservoir will increase the water storage for the area and will have the least amount of impact to the environment. This expansion should be a top priority for Denver Water.</i></p> <p>Response #1607-1: The Corps notes the support of the Moffat Project. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1608 Ruth Atkinson</p>	<div style="text-align: center;">  <p>Ms. Ruth Atkinson</p> </div> <div style="text-align: center;">  </div> <p>Mr. Scott Franklin, Moffat EIS Project Mgr U.S. Army Corps of Engineers 9307 South Wadsworth Blvd. Denver, Colorado 80128</p> <p>Dear Mr. Franklin:</p> <p>I have recently learned of the proposed expansion of Gross Reservoir and of the impact the construction, blasting and transporting of materials would have on the community of Coal Creek Canyon. I understand that a projected number of 60 semi trucks a day up and down our canyon would be needed to transport quarry rock down and materials up here for this project. In my opinion, the environmental impact of this project would jeopardize our canyon residents and destroy our roads. Hwy 72 is a two-lane road that was never designed for this kind of usage; and Gross Dam Road is a narrow dirt roadway that is not suitable for this kind of projected use. Potential for accidents will sky rocket as well as prohibit emergency travel for the fire department and ambulance service needed for our residents. I am opposed to sacrificing this canyon and its residents for this project.</p> <p>Blasting for this project would cause potential damage to surrounding residential properties and subject residents to delays in getting to work, doctors, and other destinations. I understand we would see the destruction of 20,000 to 30,000 trees. Our way of life in Coal Creek would be incredibly impacted for up to five years, I have been told. Our property values would be severely impacted and the wild life would be affected as well as the people who live here. Adding insult to injury, no local jobs would be created for our residents since I am told that a Longmont Construction group has already been contracted for this project.</p> <p>I would very much like to know what the benefits of this proposed project would be. The recent construction of a reservoir along Hwy 72 east of Hwy 93 surely provides additional water for some of the surrounding suburbs located east of it. Further expansion of the valley communities east of our canyon will only add to the pollution problems we already experience here on the eastern plains.</p> <p>Sincerely,  </p>	<p>Comment #1608-2 (ID 1482): <i>I have recently learned of the proposed expansion of Gross Reservoir and of the impact the construction, blasting and transporting of materials would have on the community of Coal Creek Canyon. I understand that a projected number of 60 semi trucks a day up and down our canyon would be needed to transport quarry rock down and materials up here for this project. In my opinion, the environmental impact of this project would jeopardize our canyon residents and destroy our roads. Hwy 72 is a two-lane road that was never designed for this kind of usage; and Gross Dam Road is a narrow dirt roadway that is not suitable for this kind of projected use. Potential for accidents will sky rocket as well as prohibit emergency travel for the fire department and ambulance service needed for our residents. I am opposed to sacrificing this canyon and its residents for this project.</i></p> <p>Response #1608-2: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77S, SH 72, SH 93, SH 128, US 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During the peak construction period, about 35 trucks could deliver material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Most of the roadways serving Gross Reservoir (e.g., SHs 72 and 93) are in good condition and are designed to handle large, heavy construction vehicles. However, Denver Water would improve other roads in the Project area to accommodate construction activities, if needed. Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns. Emergency vehicles would have access to the same response routes during construction that currently exist. If an emergency vehicle needed access to a closed road, access would be granted. Additionally, construction contractors would pull over to allow emergency response vehicles to pass as needed.</p> <p>Comment #1608-3 (ID 1483): <i>Blasting for this project would cause potential damage to surrounding residential properties and subject residents to delays in getting to work, doctors, and other destinations. I understand we would see the destruction of 20,000 to 30,000 trees. Our way of life in Coal Creek would be incredibly impacted for up to five years, I have been told. Our property values would be severely impacted and the wild life would be affected as well as the people who live here. Adding insult to injury, no local jobs would be created for our residents since I am told that a Longmont Construction group has already been contracted for this project.</i></p> <p>Response #1608-3: As described in Section 2.8.1, the anticipated construction scheduled for the Proposed Action is 4 years. Denver Water plans to implement confined charge blasting for dam construction to minimize noise. The noise levels described in the EIS are predicted at distances of less than 50 feet from the source and would be temporary and</p>




Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>remote. Sound travels omni-directionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 decibels (dB).</p> <p>An expanded analysis of impacts to communities surrounding Gross Reservoir was included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>For the purpose of the EIS, it was assumed that aggregate for the enlargement would be obtained from a supplier in the Longmont area. However, no contract is in place for the construction-related material for the Gross Reservoir enlargement.</p> <p>Comment #1608-1 (ID 1484): <i>I would very much like to know what the benefit s of this proposed project would be. The recent construction of a reservoir along Hwy 72 east of Hwy 93 surely provides additional water for some of the surrounding suburbs located east of it. Further expansion of the valley communities east of our canyon will only add to the pollution problems we already experience here on the eastern plains.</i></p> <p>Response #1608-1: The anticipated benefits of proposed Project include:</p> <ul style="list-style-type: none"> • Increase Denver Water's supply to serve customers, especially during a drought • Reduce the chance of running out of water in the Moffat Collection System during a drought • Increase the overall balance and flexibility of Denver Water's system, providing the ability to better withstand natural or man-made catastrophes

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		The Corps believes the commenter is referring to Consolidated Mutual's Wally Welton Reservoir. This reservoir is owned and operated by Consolidated Mutual and does provide water to customers in the area. Wally Welton Reservoir is an existing project, is included in Denver Water's PACSM, and does not provide "new" water to the north end of Denver Water's Collection System.


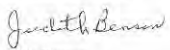
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1609 Jenifer Bailey</p>	<div style="text-align: center;">  Jenifer Bailey December 7, 2009 Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128 Dear Mr. Franklin, I attended the public hearing at Boulder Country Club on December 1st, 2009 for the Moffat Collection System Project. I went to the meeting primarily because I own a second home in Winter Park, not far from the Fraser River and thus am interested in the proposed project. There seems to be many numbers being thrown around about the way in which increased water diversion will or will not affect the Fraser River. All I know is that many times I have walked or bike-ridden along the Fraser River Trail and been saddened by how very little water flows in the river. At these times, I feel it really should be called the "Fraser Trickle". In the course of my bike riding, I also ride along the Denver Water Board's canal access road to the west of the Lakota subdivision and am amazed by how much water flows along the canal and thence to the Moffat tunnel. This at the same time that the Fraser River is trickling its meager way downstream. I firmly believe that Denver Water should be far more aggressively promoting and building its business model on water conservation not population growth. I urge the U.S. Army Corps of Engineers to invest as much of its time and resources as possible in researching the cumulative and indirect impact of the project on the Fraser River valley environment. I think that if this is done, the outcome will be a realization that the Fraser River cannot handle any more diversion. Yours sincerely,  </div> <div style="text-align: center; margin-top: 20px;">  </div>	<p>Comment #1609-1 (ID 1485): <i>I attended the public hearing at Boulder Country Club on December 15, 2009, for the Moffat Collection System Project. I went to the meeting primarily because I own a second home in Winter Park, not far from the Fraser River and thus am interested in the proposed project. There seems to be many numbers being thrown around about the way in which increased water diversion will or will not affect the Fraser River. All I know is that many times I have walked or bike-ridden along the Fraser River Trail and been saddened by how very little water flows in the river. At these times, I feel it really should be called the "Fraser Trickle". In the course of my bike riding, I also ride along the Denver Water Board's canal access road to the west of the Lakota subdivision and am amazed by how much water flows along the canal and thence to the Moffat tunnel. This at the same time that the Fraser River is trickling its meager way downstream.</i></p> <p>Response #1609-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1609-2 (ID 1486): <i>I firmly believe that Denver Water should be far more aggressively promoting and building its business model on water conservation not population growth.</i></p> <p>Response #1609-2: Denver Water does not have the legal authority to manage growth of the Combined Service Area (CSA) they serve. Rather, as a water utility, Denver Water forecasts and responds to the projected water needs of their constituents. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1609-3 (ID 1487): <i>I urge the U.S. Army Corps of Engineers to invest as much of its time and resources as possible in researching the cumulative and indirect impact of the project on the Fraser River valley environment. I think that if this is done, the outcome will be a realization that the Fraser River cannot handle any more diversion.</i></p> <p>Response #1609-3: As required by NEPA, appropriate levels of impact assessment are accomplished in FEIS Chapters 4 and 5.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1610 Judith Benson</p>	<div style="text-align: center;">  </div> <p>February 15, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Co 80128</p> <p>I am writing in regard to the Fraser River and the harm that is occurring to this river from the diversion of water going to Front Range.</p> <p>If the Moffat Firing Project and the Windy Gap Firing Project are both approved, only 26% of the Upper Colorado River's native flows will remain. In 2005, American Rivers listed the Fraser River as the 3rd most endangered river in the United States due to the extensive quantity of water currently being diverted to the Front Range. This is going to harm the entire waterways system throughout Grand County.</p> <p>It is my understanding that 50% of this water is being used for lawn watering in Denver while the natural environment of the west slope is being sacrificed to create an artificial environment on the Front Range.</p> <p>The health of our tourist based economy is directly connected to the health of our environment. The main responsibility of the Corps is the environment and to future generations. Should the Fraser River system fail may it not be because of the indifference of the Corps. Denver has not implemented sufficient conservation actions to avoid further damage to wetlands in Grand County.</p> <p>A concerned Citizen</p> <p> Judith Benson Grand County</p> <div style="background-color: black; width: 100px; height: 40px; margin-top: 10px;"></div>	<p>Comment #1610-1 (ID 1488): <i>I am writing in regard to the Fraser River and the harm that is occurring to this river from the diversion of water going to Front Range. If the Moffat Firing Project and the Windy Gap Firing Project are both approved, only 26% of the Upper Colorado River's native flows will remain. In 2005, American Rivers listed the Fraser River as the 3rd most endangered river in the United States due to the extensive quantity of water currently being diverted to the Front Range. This is going to harm the entire waterways system throughout Grand County.</i></p> <p>Response #1610-1: Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>Comment #1610-2 (ID 1489): <i>It is my understanding that 50% of this water is being used for lawn watering in Denver while the natural environment of the west slope is being sacrificed to create an artificial environment on the Front Range.</i></p> <p>Response #1610-2: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions.</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1610-3 (ID 1490): <i>The health of our tourist based economy is directly connected to the health of our environment. The main responsibility of the Corps is the environment and to future generations. Should the Fraser River system fail may it not be because of the indifference of the Corps.</i></p> <p>Response #1610-3: The Corps acknowledges the importance of the environment to the tourist-based economy. Changes to the Fraser River system as a result of the Moffat Project are addressed in the FEIS Chapter 5.</p> <p>Comment #1610-4 (ID 1491): <i>Denver has not implemented sufficient conservation actions to avoid further damage to wetlands in Grand County.</i></p> <p>Response #1610-4: There would be no direct impacts to wetlands and riparian areas on the West Slope, because there would be no changes to the diversion structures and no other construction activities for implementation of the Project. Indirect impacts to wetlands on the West Slope would</p>

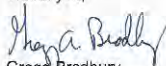

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		occur from changes in flows resulting from increased diversions in average and wet years during periods of high flow. Changes in stream flows would not occur during low flows or dry years. In addition, stream flow changes are generally not expected to result in reductions in groundwater, and are within the range of normal variability already experienced.

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1611 Charlie Bolton</p>	<div>2/11/10</div> <div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> </div> <div> </div> <p>Dear Mr. Franklin,</p> <p>I have owned a house on the Fraser River for 26 years and have lived in that house fulltime for the last 14 years. In addition I lived in south Jefferson County (which is serviced by Denver Water) for 27 years prior to moving to Fraser. I am very familiar with the abusive use of water in the Denver area (since I did it myself) and the effect it has had on the Fraser River (now that I live on the river), little realizing how "my little bit" was contributing to the river degradation. I wonder how many of the people living in the Denver area realize what impact 'their little bit' has?</p> <p>Over the years I have seen changes in the river as its flow fluctuates from year to year with an ever-increasing downward trend. Regardless of the cause, global warming, normal solar/weather cycles, El Nino, reduced snow pack, or whatever, it has and will continue to be exacerbated by the diversion of river water to Denver. It has been sad to watch the degradation of the river over that period of time, particularly as the rate has increased in more recent years. With the decrease in water level and flow-rate, and the increase in algae covering the rocks is obvious it is not a healthy habitat for flora or fauna.</p> <p>As I walk the river banks I have been so encouraged to see how the efforts to revive and improve the river and its environments has resulted in improved fish habitat, has increased the number of fishermen using the river, has increased the number of people using the Fraser River Trail (both local and tourist) and has developed ponds that meet the needs and habitat of the Bores Toad and has contributed to an environment for the betterment of all of us. Is all of this to be lost by diverting more Fraser River water to Denver and thereby encouraging more use and abuse of Fraser River water -- a vicious circle? I have seen what diversion has done and I can only imagine what more diversion will do.</p> <p>Sincerely,</p> <div> </div> <p>Charlie Bolton </p>	<p>Comment #1611-1 (ID 1492): <i>I have owned a house on the Fraser River for 26 years and have lived in that house fulltime for the last 14 years. In addition I lived in south Jefferson County (which is serviced by Denver Water) for 27 years prior to moving to Fraser. I am very familiar with the abusive use of water in the Denver area (since I did it myself) and the effect it has had on the Fraser River (now that I live on the river), little realizing how "my little bit" was contributing to the river degradation. I wonder how many of the people living in the Denver area realize what impact 'their little bit' has? Over the years I have seen changes in the river as its flow fluctuates from year to year with an ever-increasing downward trend. Regardless of the cause, global warming, normal solar/weather cycles, El Nino, reduced snow pack, or whatever, it has and will continue to be exacerbated by the diversion of river water to Denver. It has been sad to watch the degradation of the river over that period of time, particularly as the rate has increased in more recent years. With the decrease in water level and flow-rate, and the increase in algae covering the rocks is obvious it is not a healthy habitat for flora or fauna. As I walk the river banks I have been so encouraged to see how the efforts to revive and improve the river and its environments has resulted in improved fish habitat, has increased the number of fishermen using the river, has increased the number of people using the Fraser River Trail (both local and tourist) and has developed ponds that meet the needs and habitat of the Bores Toad and has contributed to an environment for the betterment of all of us. Is all of this to be lost by diverting more Fraser River water to Denver and thereby encouraging more use and abuse of Fraser River water - a vicious circle? I have seen what diversion has done and I can only imagine what more diversion will do.</i></p> <p>Response #1611-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


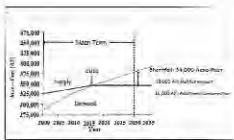
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
Comment #1612 Gregg Bradbury	<div><div>Gregg Bradbury</div><div></div><div>February 16, 2010</div><div><div>U.S. Army Corps of Engineers Attn: Scott Franklin 9307 S. Wadsworth Blvd. Littleton, CO 80128</div><div>Denver Water Board Brian Gogas Mail Code 415, 1600 W. 12th Ave. Denver, CO 80204</div><div>FERC Attn: Sec. Kimberly Bose 888 First St, NE Washington, DC 20426</div></div><div>Re: Gross Reservoir Expansion in Arvada, Colorado</div><div>Dear Mr. Franklin, Mr. Gogas & Ms. Bose,</div><div>I am writing this letter to show my support for the Gross Reservoir expansion. Expanding this reservoir will increase the water storage for the area and will have the least amount of impact to the environment. This expansion should be a top priority for Denver Water.</div><div>Thank you,  Gregg Bradbury</div></div> <div></div>	<p>Comment #1612-1 (ID 1493): <i>I am writing this letter to show my support for the Gross Reservoir expansion. Expanding this reservoir will increase the water storage for the area and will have the least amount of impact to the environment. This expansion should be a top priority for Denver Water.</i></p> <p>Response #1612-1: The Corps notes the support of the Moffat Project. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>



Comment #1612-1 (ID [1493](#)):
I am writing this letter to show my support for the Gross Reservoir expansion. Expanding this reservoir will increase the water storage for the area and will have the least amount of impact to the environment. This expansion should be a top priority for Denver Water.

Response #1612-1:
The Corps notes the support of the Moffat Project. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1613 M.H. Brinkmann</p>	<div style="text-align: center;">  <p>12 Feb 2010</p> </div> <p>Scott Franklin, Moffat EIS Project Mgr US Army Corps of Engineers 9307 South Wadsworth Blvd, Littleton, CO 80128</p> <p>Comments Re: Application No: NWO-2002-80762-DEN Project: Moffat Collection System Project</p> <p>The USACE has identified the project need based on Reliability, Vulnerability, Flexibility, and Firm Yield based on Denver Water's <i>Integrated Resources Plan</i> (IRP) in 1997, with an update in 2002, analyzing water supplies and customer demands. The IRP identified Firm Yield as Denver Water's near-term (prior to 2030) water service obligations for 18,000 acre-feet per year (AF/yr) of new, near-term firm yield. <u>"This need was identified after first assuming successful implementation of a conservation program, construction of a non-potable recycling project, and implementation of a system refinement program."</u> Denver Water's own supply and demand summary chart shows no measurable reduction in water use as first precautionary approach to minimize demand on resources.</p> <p>Mitigation measures need to be more fully defined for all alternatives especially the No Project alternative, wherein mitigation includes:</p> <ol style="list-style-type: none"> Avoiding the impact altogether by not taking a certain action or parts of an action. Minimizing impacts by limiting the degree or magnitude of the action and its implementation. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment. Reducing or eliminating impact over time by preservation and maintenance operations during the life of the action. Compensating for the impact by replacing or providing substitute resources or environments. <p>Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. This DEIS seems to consider only major projects in the Fraser River area.</p> <p>The assessment of cumulative impacts is required by CEQ regulations. Cumulative impacts, however, are not fully addressed in this DEIS document due to the inherent difficulty in understanding the complexities of these impacts, a lack of available</p> <div style="text-align: center;">  <p>Total System Demand Versus Supply</p> </div>	<p>Comment #1613-1 (ID 1494): <i>The USACE has identified the project need based on Reliability, Vulnerability, Flexibility, and Firm Yield based on Denver Water's Integrated Resources Plan (IRP) in 1997, with an update in 2002, analyzing water supplies and customer demands. The IRP identified Firm Yield as Denver Water's near-term (prior to 2030) water service obligations for 18,000 acre-feet per year (AF/yr) of new, near-term firm yield. "This need was identified after first assuming successful implementation of a conservation program, construction of a non-potable recycling project, and implementation of a system refinement program." Denver Water's own supply and demand summary chart shows no measurable reduction in water use as first precautionary approach to minimize demand on resources.</i></p> <p>Response #1613-1: Water conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>information on their consequences, and the desire by proponents to limit the scope of environmental analysis. Cumulative impacts must include indirect effects of each alternative. This does not appear to be well done in the DEIS</p> <p>In the case of <i>League of Wilderness Defenders et al. v. U.S. Forest Service</i> [11 Dec. 2008], the U.S. 9th Circuit Court of Appeals approved a CEQ guide on the preparation of cumulative impact analyses under NEPA. The decision held that the U.S. Forest Service was permitted to consider "past actions" on an aggregate basis, because such an approach was consistent with the CEQ's interpretation. Additionally, in evaluating cumulative impacts, federal agencies must continue to account for "reasonably foreseeable future actions," such as increased water demand in the front range. The DEIS seems to consider only water extract projects other NEPA projects affecting the Colorado River should also be evaluated.</p> <p>Indirect and secondary impacts are not well defined and analyzed for inclusion in the evaluation of cumulative effects. It is reasonable to foresee that additional water supplies to the Denver area will continue to spur additional growth in demand thus requiring more water diversions well beyond the 2016 to 2030 project period. The growth in Grand County is noted only from a gross water demand basis without measureable review of the cumulative stress on the rivers systems from this growth (e.g. sedimentation) while further withdrawals are made to the front range users.</p> <p>Alternative assessments do not test the options of curtailing demand (i.e. project need). The proponents own graph in the need statement summary shows no deflection of growth in demand. Existing attempts to manage demand were not shown to be effective. Changes in building codes and water pricing could be part of the base mitigation measures required. The definition of municipal demand should also be more closely differentiated into additional categories for this analysis e.g. drinking, sanitary, lawn/ garden, parks, etc.</p> <p>I request that the DEIS be halted until such time that the proponent can demonstrate and commit to mitigation measures for all alternatives which reduce demand and cumulative impacts.</p> <p>Sincerely,  M.H. Brinkmann </p>	<p>A summary of conservation measures implemented by Denver Water is provided in Table 1-2 of the DEIS and FEIS. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water has been encouraging their customers to use 22% less water than they were consuming before the 2002 drought, by 2016. To date, Denver Water customers are using 18% less water than they were before the 2002 drought.</p> <p>When calculating future demand as shown in FEIS Table 1-1, Denver Water considers past and future conservation.</p> <p>Comment #1613-2 (ID 1495): <i>Mitigation measures need to be more fully defined for all alternatives especially the No Project alternative, wherein mitigation includes: (a) Avoiding the impact altogether by not taking a certain action or parts of an action. (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment. (d) Reducing or eliminating impact over time by preservation and maintenance operations during the life of the action. (e) Compensating for the impact by replacing or providing substitute resources or environments.</i></p> <p>Response #1613-2: The No Action Alternative is one which results in no construction requiring a Corps' Section 404 Permit; therefore, the Corps would not require mitigation for the No Action Alternative. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA. The Corps requires that impacts to the aquatic environment must first be avoided or minimized. Mitigation is then used to compensate for residual impacts after impacts have been reduced through avoidance and minimization.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1613-3 (ID 1496): <i>Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. This DEIS seems to consider only major projects in the Fraser River area. The assessment of cumulative impacts is required by CEQ regulations. Cumulative impacts, however, are not fully addressed in this DEIS document due to the inherent difficulty in understanding the complexities of these impacts, a lack of available information on their consequences, and the desire by proponents to limit the scope of environmental analysis. Cumulative impacts must include indirect effects of each alternative. This does not appear to be well done in the DEIS In the case of League of Wilderness Defenders et al. v. U.S. Forest Service [11 Dec. 2008], the U.S. 9th Circuit Court of Appeals approved a CEQ guide on the preparation of cumulative impact analyses under NEPA. The decision held that the U.S. Forest Service was permitted to consider "past actions" on an aggregate basis, because such an approach was consistent with the CEQ's interpretation. Additionally, in evaluating cumulative impacts, federal agencies must continue to account for "reasonably foreseeable future actions," such as increased water demand in the front range. The DEIS seems to consider only water extract projects other NEPA projects affecting the Colorado River should also be evaluated. Indirect and secondary impacts are not well defined and analyzed for inclusion in the evaluation of cumulative effects. It is reasonable to foresee that additional water supplies to the Denver area will continue to spur additional growth in demand thus requiring more water diversions well beyond the 2016 to 2030 project period. The growth in Grand County is noted only from a gross water demand basis without measureable review of the cumulative stress on the rivers systems from this</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>growth (e.g. sedimentation) while further withdrawals are made to the front range users.</i></p> <p>Response #1613-3: The EIS describes the potential cumulative effects that would result from the Moffat Project combined with other projects and activities based on NEPA and Section 404(b)(1) criteria. The regulations for implementing NEPA define cumulative impacts as the impact on the environment which results from the incremental impact of the action when added to other past, present, and RFFAs and regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 Code of Federal Regulations [CFR] 1508.7). This regulation refers only to the cumulative impact of direct and indirect effects of the Proposed Action and its alternatives when added to the aggregate effects of past, present, and RFFAs.</p> <p>The Section 404 regulations state that "cumulative impacts are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems" (40 CFR 230.11[g][1]).</p> <p>The cumulative effects analysis for the Moffat Project evaluated past and present actions that continue to influence existing environmental conditions. The cumulative effects analysis also included reasonably foreseeable actions that, when combined with one of the Project alternatives, result in a cumulative effect on the environment. For purposes of organization of the EIS cumulative effects were evaluated in two timeframes:</p>





Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>(1) past or ongoing present actions and (2) future actions. Each of these two timeframes includes a discussion of water-based or land-based actions.</p> <p>Build-out demands for Grand and Summit counties are provided in DEIS Section 5.3.1 (under the subheading Urban Growth in Grand and Summit Counties), and in DEIS Table 5.4 by water user. The estimates of build-out growth were provided by the individual water providers/users listed in that table in conjunction with the Upper Colorado River Basin Study (UPCO) Phase II Final Report (Hydrosphere 2003). After the 2003 UPCO Report was published, the UPCO participants in Summit and Grand counties provided revisions to several existing and build-out demands. Revisions to these build-out demands were provided to Denver Water primarily via Lane Wyatt, representing Grand County. Participants in the UPCO study were provided the opportunity to review and comment on the assumptions used in PACSM related to their demands to confirm their accuracy.</p> <p>Comment #1613-4 (ID 1497): <i>Alternative assessments do not test the options of curtailing demand (i.e. project need). The proponents own graph in the need statement summary shows no deflection of growth in demand. Existing attempts to manage demand were not shown to be effective. Changes in building codes and water pricing could be part of the base mitigation measures required. The definition of municipal demand should also be more closely differentiated into additional categories for this analysis e.g. drinking, sanitary, lawn/ garden, parks, etc.</i></p> <p>Response #1613-4: Denver Water is a not-for-profit organization, and a significant portion of Denver Water's annual costs do not vary with the amount of water sold. When those costs increase, the costs to ratepayers increase as well. All Denver Water Customers are metered. Denver Water implements a Block Census Rate Structure (i.e., the</p>



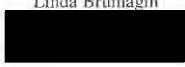
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>more one uses, the more one pays). Rates are based on a cost of service analysis comprised of customer classes (e.g., residential, industrial, commercial, and institutional) and by whether customers live inside or outside the City and County of Denver. Costs are recovered from each customer class in proportion to the cost of providing the service to each class. Rates consist of a consumption charge per 1,000 gallons consumed a fixed, per account service charge.</p> <p>Denver Water does consider future retrofits of existing plumbing features and past and future conservation measures when calculating future demand (FEIS Table 1-1). Denver Water does breakdown the total system demand into smaller subsets when looking for efficiencies, evaluating conservation programs, and determining rates. However, for the purpose of this EIS, the Corps looked at total system demand.</p> <p>Comment #1613-5 (ID 1498): <i>I request that the DEIS be halted until such time that the proponent can demonstrate and commit to mitigation measures for all alternatives which reduce demand and cumulative impacts.</i></p> <p>Response #1613-5: The Corps notes the comment.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1614 Joan C. Brooks</p>	<div style="text-align: center;">  </div> <p>To: Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>It's hard to believe that Denver Water Board wants to take water from an already stressed small mountain river (The Fraser) to placate the greedy developers in Denver who have only added to the sprawl that is now the Front Range.</p> <p>The mountain towns are overloaded with mini-mansions owned by Denverites (or banks)who care nothing about the environment, the people who live here, the animal population, our dying trees or any of our needs and water problems.</p> <p>Especially if we have a dry winter (which the current winter is in the North and Central areas)we surely don't want our rivers feeding the grass in Denver. Often I've seen water running down the streets in many neighborhoods in Denver and the suburbs.</p> <p>Perhaps the state should ban all new construction, raise the water rates in the whole Front Range and ponder how it can serve the people who have real homes in the mountain towns.</p> <p>Thank you for your attention to this matter.</p> <p>Joan C. Brooks   </p>	<p>Comment #1614-1 (ID 1499): <i>It's hard to believe that Denver Water Board wants to take water from an already stressed small mountain river (The Fraser) to placate the greedy developers in Denver who have only added to the sprawl that is now the Front Range. The mountain towns are overloaded with mini-mansions owned by Denverites (or banks)who care nothing about the environment, the people who live here, the animal population, our dying trees or any of our needs and water problems. Especially if we have a dry winter (which the current winter is in the North and Central areas)we surely don't want our rivers feeding the grass in Denver. Often I've seen water running down the streets in many neighborhoods in Denver and the suburbs. Perhaps the state should ban all new construction, raise the water rates in the whole Front Range and ponder how it can serve the people who have real homes in the mountain towns.</i></p> <p>Response #1614-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>



Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1615 Linda Brumagin</p>	<div style="text-align: center;">  </div> <p>Mr. Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin:</p> <p>Last summer I drove to the front range from Winter Park. As I traveled through the neighborhoods, I noticed the beautifully manicured, lush green lawns, and was amazed that they could grow so abundantly in a region suffering such a bad drought. Then I realized that the water (sixty percent, to be exact!) used to feed these lush lawns is the very water that I use for drinking water, the water that provides nourishment for the forests in Grand County, that provides habitat for the fish and game that make this state the envy of the country.</p> <p>Because of the diversions imposed on the Fraser River, it has become the 3rd most endangered river in the US. The water clarity in Grand Lake has gone from a 9+ in 1940 to a 3- today. Further dewatering the Fraser River will increase algae counts, diminish water clarity, cause much higher concentration of run-off nutrients, and endanger this valuable eco tourism region.</p> <p>Now I ask you, are the manicured green lawns of the front range neighborhoods worth the destruction this diversion will cause to the rest of the state? I think not. The people of Colorado have the opportunity to become an example to the rest of the country by protecting our natural resources and thus ensuring an eco-friendly environment for our future inhabitants. Let's not lose this golden opportunity.</p> <p style="text-align: center;">Sincerely,  Linda Brumagin </p>	<p>Comment #1615-0 (ID 1500): <i>Last summer I drove to the front range from Winter Park. As I traveled through the neighborhoods, I noticed the beautifully manicured, lush green lawns, and was amazed that they could grow so abundantly in a region suffering such a bad drought. Then I realized that the water (sixty percent, to be exact!) used to feed these lush lawns is the very water that I use for drinking water, the water that provides nourishment for the forests in Grand County, that provides habitat for the fish and game that make this state the envy of the country.</i></p> <p>Response #1615-0: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1615-0 (ID 1501): <i>Because of the diversions imposed on the Fraser River, it has become the 3rd most endangered river in the US. The water clarity in Grand Lake has gone from a 9+ in 1940 to a 3- today. Further dewatering the Fraser River will increase algae counts, diminish water clarity, cause much higher concentration of run-off nutrients, and endanger this valuable eco-tourism region.</i></p> <p>Response #1615-0: Additional water quality analysis has been performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1615-3 (ID 1502): <i>Now I ask you, are the manicured green lawns of the front range neighborhoods worth the destruction this diversion will cause to the rest of the state? I think not. The people of Colorado have the opportunity to become an example to the rest of the country by protecting our natural resources and thus ensuring an eco-friendly environment for our future inhabitants. Let's not lose this golden opportunity.</i></p> <p>Response #1615-3: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1616 Deborah R. Buhayar</p>	<div style="text-align: right; margin-bottom: 10px;"> <p>December 4th, 2009</p> <p>Ms. Deborah R Buhayar</p>  </div> <div style="margin-bottom: 10px;"> <p>Mr. Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Colorado 80128</p> </div> <p>Dear Mr. Franklin,</p> <p>I am most appreciative of The Army Corps of Engineers' efforts to wade through the vast amount of information related to the Moffat Firing Project and more importantly, hopeful that farsighted and wise rulings will prevail to preserve the best for all those that are impacted by the Corps decisions.</p> <p>I was present at the hearings December 2nd in Granby, at which a large number of people in the Fraser Valley expressed deep concerns about what the long history of diverting waters from Grand County have done to our waterways. The impact is felt on a daily basis for those of us that are full time residents of the community but will also be felt by all the residents of the Front Range who rely on the bounty of the Fraser Valley for their recreation. Grand County's natural assets contribute in such a significant way to the quality of life for people on both sides of the divide, that we must, in concert, do all that is possible to prevent the sacrifice of our fragile lakes, rivers, and streams upon which the overall sustainability of our communities depend. Unfettered development of our Front Range and Mountain communities is bad for us all.</p> <p>Now is the time to step up and do what is difficult.</p> <p>As a resident of the Fraser Valley, I implore you to utilize whatever regulatory powers you have to assure strict and meaningful conservation efforts be required before more water is diverted from the rivers that are in jeopardy from past diversions. Lets nurse the Colorado River, Fraser River, and Grand County lakes back to health so they can sustain us, and our children in the future. More than lip service needs to be given to mitigating the damages created by past and future diversions of water to the Front Range. Mitigation requirements need to be an integral part of the EIS.</p> <p>The Corps of Engineers along with the EPS is in the unique and important position to be able to do what is right and farsighted to sustain a healthy environment. We are depending upon your wisdom. Please do not fail us.</p> <p>Respectfully,</p>  <p>Deborah R. Buhayar</p>	<p>Comment #1616-1 (ID 1503): <i>I am most appreciative of The Army Corps of Engineers' efforts to wade amount of information related to the Moffat Firing Project and more importantly, hopeful that farsighted and wise rulings will prevail to preserve the best for all those that are impacted by the Corps decisions.</i></p> <p>Response #1616-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1616-4 (ID 1504): <i>I was present at the hearings December 2 in Granby, at which a large number of people in the Fraser Valley expressed deep concerns about what the long history of diverting waters from Grand County have done to our waterways. The impact is felt on a daily basis for those of us that are full time residents of the community but will also be felt by all the residents of the Front Range who rely on the bounty of the Fraser Valley for their recreation. Grand County's natural assets contribute in such a significant way to the quality of life for people on both sides of the divide, that we must, in concert, do all that is possible to prevent the sacrifice of our fragile lakes, rivers, and streams upon which the overall sustainability of our communities depend. Unfettered development of our Front Range and Mountain communities is bad for us all.</i></p> <p>Response #1616-4: The Corps notes the comment.</p>


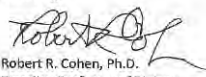
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1616-2 (ID 1505): <i>Now is the time to step up and do what is difficult. As a resident of the Fraser Valley, I implore you to utilize whatever regulatory powers you have to assure strict and meaningful conservations efforts be required before more water is diverted from the rivers that are in jeopardy from past diversions. Lets nurse the Colorado River, Fraser River, and Grand County lakes back to health so they can sustain us, and our children in the future.</i></p> <p>Response #1616-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1616-3 (ID 1506): <i>More than lip service needs to be given to mitigating the damages created by past and future diversions of water to the Front Range. Mitigation requirements need to be an integral part of the EIS.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1616-3: Appropriate conceptual mitigation is discussed in the FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p> <p>Comment #1616-5 (ID 1507): <i>The Corps of Engineers along with the EPS is in the unique and important position to be able to do what is right and farsighted to sustain a healthy environment. We are depending upon your wisdom. Please do not fail us.</i></p> <p>Response #1616-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1617 Robert R. Cohen, PhD</p>	<div style="text-align: right; margin-bottom: 10px;">  12 January 2010 </div> <p>Scott Franklin, Moffat EIS Project Mgr. U.S. Army Corps of Engineers 9307 South Wadsworth Blvd. Denver, CO 80128</p> <p>Dear Mr. Franklin:</p> <p>As a resident of Coal Creek Canyon for the last 22 years I wish to most strenuously object to the proposal to use Colorado Highway 72 for frequent heavy truck transportation over a several year period for the expansion of Gross Reservoir (Project No. 2035).</p> <p>The need for expansion of that reservoir is not absolute. Without any doubt this part of the country will have to enforce much more stringent water conservation rules at some time in the near future; why not begin now? Frequently-watered grass lawns are simply ecologically unrealistic here, and they will have to disappear sooner or later, as they already have in other parts of SW United States, as the population increases and the climate becomes warmer and drier. A consequent overall water shortage for Colorado is inevitable, and to act in disregard of that inevitability is simply being in denial.</p> <p>If the expansion of the reservoir is to (foolishly) occur nonetheless, then the choice to transport materials frequently along Colo. Hwy. 72 in large trucks is unwise unless there is no alternative.</p> <p>According to my understanding, there is a possible alternative: transportation by railroad.</p> <p>Colo. Hwy. 72 is not engineered for frequent heavy truck traffic; it is winding and two-lane only, with many tight turns and few places for passing; it has little shoulder in most places, and it has occasional side drop-offs and rock side-walls. Not only would the road be badly damaged by such activity, a great amount of traffic congestion would occur due to the low speed of the trucks, making a much slower, very unpleasant, frustrating, and dangerous drive for the other people driving the road or riding the road on a bicycle (the highway is a favored route for bicyclists during spring, summer, and fall).</p> <p>A great increase in risk of traffic accidents along this highway for several years is especially unacceptable. A high proportion of the residents of this canyon commute down into the Denver Metro Area to work daily during the week. Although, now in retirement, I drive the highway in the lower part of the canyon only once or twice per week on average, my wife, Irit, drives it an average of 6 days per week during almost the entire year in commuting to work. The use of the highway for frequent heavy truck traffic would make this drive miserable as well as very dangerous for everyone else.</p> <p>Please make sure that all factors are taken into account in making this decision, including the potential costs in loss of quality of life and the increased risk of personal injury or death due to accidents along the highway for those that reside here and/or drive or ride that road.</p> <p style="text-align: center;">Sincerely,  Robert R. Cohen, Ph.D. Emeritus Professor of Biology</p>	<p>Comment #1617-1 (ID 1580): <i>As a resident of Coal Creek Canyon for the last 22 years I wish to most strenuously object to the proposal to use Colorado Highway 72 for frequent heavy truck transportation over a several year period for the expansion of Gross Reservoir [Project No. 2035].</i></p> <p>Response #1617-1: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1617-2 (ID 1579): <i>The need for expansion of that reservoir is not absolute. Without any doubt this part of the country will have to enforce much more stringent water conservation rules at some time in the near future; why not begin now? Frequently-watered grass lawns are simply ecologically unrealistic here, and they will have to disappear sooner or later, as they already have in other parts of SW United States, as the population increases and the climate becomes warmer and drier. A consequent overall water shortage for Colorado is inevitable, and to act in disregard of that inevitability is simply being in denial.</i></p> <p>Response #1617-2: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1617-3 (ID 1578): <i>If the expansion of the reservoir is to [foolishly] occur nonetheless, then the choice to transport materials frequently along Colo. Hwy. 72 in large trucks is unwise unless there is no alternative. According to my understanding, there is a possible alternative: transportation by railroad. Colo. Hwy. 72 is not engineered for frequent heavy truck traffic; it is winding and two-lane only, with many tight turns and few places for passing; it has little shoulder in most places, and it has occasional side drop-offs and rock side-walls. Not only would the road be badly damaged by such activity, a great amount of traffic congestion would occur due to the low speed of the trucks, making a much slower, very unpleasant, frustrating, and dangerous drive for the other people driving the road or riding the road on a bicycle (the highway is a favored route for bicyclists during spring, summer, and fall). A great increase in risk of traffic accidents along this highway for several years is especially unacceptable. A high proportion of the residents of this canyon commute down into the Denver Metro Area to work daily during the week. Although, now in retirement, I drive the highway in the lower part of the canyon only once or twice per week on average, my wife, Irit, drives it an average of 6 days per week during almost the entire year in commuting to work. The use of the highway for frequent heavy truck traffic would make this</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>drive miserable as well as very dangerous for everyone else. Please make sure that all factors are taken into account in making this decision, including the potential costs in loss of quality of life and the increased risk of personal injury or death due to accidents along the highway for those that reside here and/or drive or ride that road.</i></p> <p>Response #1617-3: Denver Water hired an independent consultant to evaluate using the railroad to transport material to the site. The consultant found that using the railroad would not be feasible for the Project because of the technical, logistical, topographical and cost problems associated with unloading material at the existing railroad siding. Based on discussions with Union Pacific Railroad, the consultant determined that new infrastructure would need to be constructed to accommodate the rail cars and avoid conflicts with the coal train traffic on the mainline; handle unloading of the various materials into trucks, which would be needed to transport the material to the dam site; and avoid conflicts with traffic on Gross Dam Road. A new siding would be very difficult and expensive (approximately \$20 million) to construct due to the constraints of the existing topography and would require a significant amount of material to be hauled to the siding by truck on SH 72.</p>


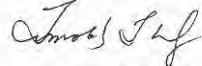
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1618 Michael and Jane Coleman</p>	<p style="text-align: right;">Page: 001 R=96%</p> <p style="text-align: right;">ID: TR1 LKES [REDACTED] From: 144-2800 03:57PM</p> <p>Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd Littleton, CO 80128</p> <p>December 24, 2009</p> <p>Dear Mr. Scott Franklin,</p> <p>My wife and I are strongly opposed to Denver Water's taking of any additional water from Colorado's high country. We have a home in Grand Lake, but we live in Littleton. As such, we constantly see water being wasted by Denver water and its customers. There could be a lot of water saved if Denver Water would place restrictions on water's use on a year round basis. Denver Water conservation efforts fall far short of where they should be and yet they want more. We think their money would be better spent in finding ways to keep water that originates in Colorado, in Colorado. Better conservation efforts and restrictions on use should apply to all who use the water from the beginning of the rivers to the end.</p> <p>Thank you for your consideration,</p> <p> Michael & Jane Coleman [REDACTED]</p> <p style="text-align: right;">Dec 24 09 02:50p Jane Coleman</p>	<p>Comment #1618-2 (ID 1588): <i>My wife and I are strongly opposed to Denver Water's taking of any additional water from Colorado's high country.</i></p> <p>Response #1618-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1618-1 (ID 1587): <i>We have a home in Grand Lake, but we live in Littleton. As such, we constantly see water being wasted by Denver water and its customers. There could be a lot of water saved if Denver Water would place restrictions on water's use on a year round basis. Denver Water conservation efforts fall far short of where they should be and yet they want more. We think their money would be better spent in finding ways to keep water that originates in Colorado, in Colorado. Better conservation efforts and restrictions on use should apply to all who use the water from the beginning of the rivers to the end.</i></p> <p>Response #1618-1: Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of 18,000 AF. Denver Water is implementing an aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1621 Timothy Day</p>	<div style="text-align: center;">  <p>January 27, 2010</p> </div> <p>Timothy Day [Redacted]</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Sir:</p> <p>As a taxpayer and resident of the Fraser Valley for 30 years, I am writing to express my concern about the Moffat EIS. Denver Water has not adequately addressed the issue of impacts to water temperature and water quality, two issues very important to us here in Grand County. Many factors impact water temperature and quality. Here are two items that have not been adequately addressed:</p> <ol style="list-style-type: none"> 1) The Fraser Valley is a popular area for tourism being developed with many new condo complexes and second homes. People come from all over the country to recreate here. More baby boomers are moving here for retirement. The EIS does not adequately address the cumulative impacts of growth in population and tourism with the impacts of their proposed additional diversion. 2) Because we are all concerned with the health of the rivers, our wastewater treatment facilities closely monitor the effluent being discharged into the rivers. Our citizens have financed new treatment facilities in an attempt to keep up with growth. But now, water and wastewater customers in the Fraser Valley will ALSO pay for the increase in Denver Water's diversions. The decrease in volume of the Fraser River will diminish water quality and what is left of the water supply will require additional treatment to make it potable for household consumption. <p>Wastewater treatment costs will also increase: to treat wastewater, bacteria must have a certain minimum (higher) temperature to function properly. We spend a considerable amount of time and expense to lower the temperature of the effluent for discharge into the Fraser. The EIS does not adequately address impacts of wastewater discharge into the lower volume, higher temperature river. Wastewater treatment plants are not the only source of discharge into the river system. Discharge from large tourism facilities with private treatment systems such as the YMCA, Devils Thumb Ranch, Young Life, C Lazy U Ranch and others also has an impact that is not addressed in the EIS.</p> <p>I started fishing and became better educated on temperature impacts of the streams and during the last 5 years I have been taking temperature reading. I noticed that during summer months flow are low and the temperatures are over quite high. Dangerously high for the fish and other aquatic life. Please require additional assessments of cumulative impacts for this EIS.</p> <p>Sincerely, Timothy Day</p>  <p>cc: Sen. Mark Udall</p>	<p>Comment #1621-3 (ID 1599): <i>As a taxpayer and resident of the Fraser Valley for 30 years, I am writing to express my concern about the Moffat EIS. Denver Water has not adequately addressed the issue of impacts to water temperature and water quality, two issues very important to us here in Grand County. Many factors impact water temperature and quality.</i></p> <p>Response #1621-3: Additional water quality analysis, including temperature, has been performed on the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1621-2 (ID 1598): <i>Here are two items that have not been adequately addressed: The Fraser Valley is a popular area for tourism being developed with many new condo complexes and second homes. People come from all over the country to recreate here. More baby boomers are moving here for retirement. The EIS does not adequately address the cumulative impacts of growth in population and tourism with the impacts of their proposed additional diversion.</i></p> <p>Response #1621-2: The West Slope recreational economy was further addressed in FEIS Section 5.19.</p> <p>Comment #1621-4 (ID 1597): <i>Because we are all concerned with the health of the rivers, our wastewater treatment facilities closely monitor the effluent being discharged into the rivers. Our citizens have financed new treatment facilities in an attempt to keep up with growth. But now, water and wastewater customers in the Fraser Valley will ALSO pay for the increase in Denver Water's diversions. The decrease in volume of the Fraser River will diminish water quality and what is left of the water supply will require additional treatment to make it potable for household consumption.</i></p>

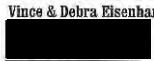

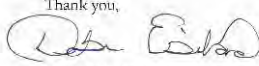
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Wastewater treatment costs will also increase: to treat wastewater, bacteria must have a certain minimum (higher) temperature to function properly. We spend a considerable amount of time and expense to lower the temperature of the effluent for discharge into the Fraser. The EIS does not adequately address impacts of wastewater discharge into the lower volume, higher temperature river. Wastewater treatment plants are not the only source of discharge into the river system. Discharge from large tourism facilities with private treatment systems such as the YMCA, Devils Thumb Ranch, Young Life, C Lazy U Ranch and others also has an impact that is not addressed in the EIS. I started fishing and became better educated on temperature impacts of the streams and during the last 5 years I have been taking temperature reading. I noticed that during summer months flow are low and the temperatures are over quite high. Dangerously high for the fish and other aquatic life.</i></p> <p>Response #1621-4: Additional water quality analysis, including WWTP discharge permits and temperature, has been performed for the Fraser River. Additional nutrient analysis, including nitrogen and phosphorus inputs from all National Pollutant Discharge Elimination System (NPDES) permitted discharges to surface waters, has been performed for the Fraser River. Please refer to FEIS Sections 4.6.2 and 5.2. Please note that the need for and issuance of an NPDES permit is not related to whether the system is publicly or privately owned.</p> <p>Comment #1621-1 (ID 1596): <i>Please require additional assessments of cumulative impacts for this EIS.</i></p> <p>Response #1621-1: Please refer to the reorganized format of the FEIS, which provides a revised baseline for more detailed discussion of Project related effects. FEIS Chapter 4 now describes the</p>



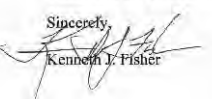
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		total environmental effects (the Project in combination with other reasonably foreseeable projects) that are anticipated to occur between Current Conditions (2006) and Full Use with a Project Alternative (2032). FEIS Chapter 5 describes Project-related effects between Full Use of the Existing System and Full Use with a Project Alternative (2032).

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1622 Vince and Debra Eisenhand</p>	<div style="text-align: center;">  </div> <p>February 16, 2010</p> <div style="text-align: center;">  </div> <p>U.S. Army Corps of Engineers Attn: Scott Franklin 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Denver Water Board Brian Gogas Mail Code 415, 1600 W. 12th Ave. Denver, CO 80204</p> <p>FFRC Attn: Sec. Kimberly Bose 888 First St, NE Washington, DC 20426</p> <p>Re: Gross Reservoir Expansion in Arvada, Colorado</p> <p>Dear Mr. Franklin, Mr. Gogas & Ms. Bose,</p> <p>I am writing this letter to show my support for the Gross Reservoir expansion. Expanding this reservoir will increase the water storage for the area and will have the least amount of impact to the environment. This expansion should be a top priority for Denver Water.</p> <p>Thank you,</p> <div style="text-align: center;">  </div> <p>Vince & Debra Eisenhand</p>	<p>Comment #1622-1 (ID 1600): <i>I am writing this letter to show my support for the Gross Reservoir expansion. Expanding this reservoir will increase the water storage for the area and will have the least amount of impact to the environment. This expansion should be a top priority for Denver Water.</i></p> <p>Response #1622-1: The Corps notes the support of the Moffat Project. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1624 Kenneth J. Fisher</p>	<div style="text-align: center;">  Kenneth J. Fisher </div> <div style="text-align: right;">  </div> <p style="text-align: right;">January 22, 2010</p> <p>Scott Franklin, Moffat EIS Project manager Corps Denver Regulatory Office 9307 Wadsworth Blvd. Littleton, CO 80128</p> <p>Re: Gross Dam Expansion</p> <p>Dear Mr. Franklin,</p> <p>Among issues which were ignored or insufficiently investigated in the draft environmental impact statements are the effects of the proposed project on the citizens who live in the Coal Creek Canyon area. Traffic disruption, for instance; we understand that we can expect 60 trucks a day hauling materials to the dam site and removing trees from the site. It can be reasonably assumed that accidents will increase as a result of traffic tie ups and impatient drivers. The Gross Dam Road, over which the trucks must pass, is steep, with several sharp turns, hair pins and low visibility. After a snow fall the road can become quite icy. It also becomes extremely dusty in the summer time.</p> <p>An extensive area bordering the dam project is Colorado State Park and/or Boulder County open space. These parks were created because they were undeveloped and quiet with almost no disruption of the migratory patterns of wildlife and birds of prey. The nearly constant noise generated by the quarrying of materials for the dam, the construction traffic, helicopters removing twenty thousand trees, blasting is in no way compatible with the way this unique area has evolved since the time Gross Dam was originally constructed.</p> <p>The Corps did not consider conservation and modified usage of water in the service area of the Denver Water Board. We understand that the Denver metropolitan area uses water at a rate per capita that is significantly higher than other metropolitan areas not located in such an arid climate zone. It is our opinion that the Corps should deny the permits to continue and recommend that the Denver Water Board institute an aggressive campaign to conserve and reuse its water.</p> <p>Thank You for your attention to this matter,</p> <p style="text-align: center;">Sincerely,  Kenneth J. Fisher</p>	<p>Comment #1624-3 (ID 1612): <i>Among issues which were ignored or insufficiently investigated in the draft environmental impact statements are the effects of the proposed project on the citizens who live in the Coal Creek Canyon area.</i></p> <p>Response #1624-3: FEIS Section 5.19 provided additional analysis and discussion as appropriate regarding impacts to communities surrounding Gross Reservoir.</p> <p>Comment #1624-2 (ID 1611): <i>Traffic disruption, for instance; we understand that we can expect 60 trucks a day hauling materials to the dam site and removing trees from the site. It can be reasonably assumed that accidents will increase as a result of traffic tie ups and impatient drivers. The Gross Dam Road, over which the trucks must pass, is steep, with several sharp turns, hair pins and low visibility. after a snow fall the road can become quite icy. It also becomes extremely dusty in the summer time. An extensive area bordering the dam project is Colorado State Park and/or Boulder County open space. These parks were created because they were undeveloped and quiet with almost no disruption of the migratory patterns of wildlife and birds of prey. The nearly constant noise generated by the quarrying of materials for the dam, the construction traffic, helicopters removing twenty thousand trees, blasting is in no way compatible with the way this unique area has evolved since the time Gross Dam was originally constructed.</i></p> <p>Response #1624-2: Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. An average of 60 commuter vehicles could make the trip daily to the reservoir. The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>responsible for ensuring that Colorado attains, maintains, and enforces the NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare.</p> <p>For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with all applicable noise ordinances and work with Boulder County to identify reasonable and feasible noise abatement measures for the Project construction period.</p> <p>Denver Water evaluated several tree removal options. Limited road access to the reservoir shore, steep slopes and large rock outcrops complicate tree removal in most areas along the shoreline. Ground-based systems are proposed where roads exist or where temporary road construction is possible. Hydro-axing is proposed in the upper reaches of Forsythe Canyon due to steep slopes and heavy rock. Helicopter yarding is proposed where road access is not available or impossible to construct. The tree removal plan shows several possible landing sites for helicopters during tree removal and some of these are below the Lakeshore neighborhood. Due to the expense of using helicopters, Denver Water would keep the use of helicopters to a minimum. Denver Water would develop the final tree removal plan in cooperation with the USFS, Colorado State Forest Service, and Boulder County. Denver Water has proposed working with the USFS to identify recycling opportunities. The current Forest Management Plan is under the authority of FERC in a joint effort with the USFS. The Corps believes that Denver Water would comply with any conditions required by FERC.</p> <p>Comment #1624-1 (ID 1610): <i>The Corps did not consider conservation and modified</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>usage of water in the service area of the Denver Water Board. We understand that the Denver metropolitan area uses water at a rate per capita that is significantly higher than other metropolitan areas not located in such an arid climate zone. It is our opinion that the Corps should deny the permits to continue and recommend that the Denver Water Board institute an aggressive campaign to conserve and reuse its water.</i></p> <p>Response #1624-1: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>As shown in Table 1-1 in FEIS Section 1.4.1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand</p>




Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A (Supplemental Evaluation of Denver Water Demand Projections) and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water is in the process of completing a Recycling Project that will use reusable supplies to meet an annual demand of 17,500 AF. Denver Water is also in the process of constructing 30,000 AF of gravel pit reservoir storage downstream of Denver. The storage facilities would be used to manage reusable supplies by storing excess reusable supplies in time of surplus, and releasing the stored reusable supplies at times of shortage. The gravel pits would be used for the following purposes:</p> <ol style="list-style-type: none"> 1. Perform exchanges to upstream facilities. In an exchange, reusable water is added to a stream at a downstream location to enable diversion of a like amount of water at an upstream location. 2. Deliver the reusable water to the Recycling Plant, treat the water, and distribute it for non-potable uses. The recycling plant requires gravel pit storage to

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>supply reusable water to the Recycle Plant, via exchange, when reusable water is not available at Metro WWTP or Littleton-Englewood (Bi-City) WWTP.</p> <ol style="list-style-type: none"> 3. Deliver an annual supply of 5,000 AF of reusable water to South Adams County Water and Sanitation District (per agreements). 4. Use reusable water to augment raw water systems in the Denver Metropolitan area (e.g., augment the wells used to supply water to Denver parks). <p>The reusable water needed to support these projects was included in the PACSM simulations and therefore less reusable water is available for a new project. These projects were not on-line in from 1998 to 2008 as noted in the comment, but once these projects are completed, the average annual available unused reusable effluent is estimated to be approximately 7,600 AF. This is an example of why it is inappropriate to simply rely on historical values to draw conclusions.</p> <p>As shown in the DEIS Table 2-9, the estimated 7,600 AF of average annual unused reusable water ranges from to zero AF some years, to as high as approximately 37,500 AF in one year. The highest year of unused return flows does occur in a dry year, but many other dry years and periods have less than the 6,700 AF average. Project alternatives that included 5,000 AF of yield using the reusable return flows were analyzed. Alternative that included more than 5,000 AF would have been even more expensive on a cost per AF basis. Also note that with PACSM, Denver Water's unused reusable return flows are used and reused to extinction.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1625 Amalia J. Fisher</p>	<div style="text-align: center;">  <p>Amalia J. Fisher</p> </div> <div style="text-align: center;">  </div> <p>Scott Franklin, Moffat EIS Project Mgr. Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Denver, CO 80403</p> <p>Re: Gross Dam Expansion</p> <p>Dear Mr. Franklin,</p> <p>Among issues which were ignored or insufficiently investigated in the draft environmental impact statements are the effects of the proposed project on the citizens who live in the Coal Creek Canyon area. Traffic disruption, for instance; we understand that we can expect 60 trucks a day hauling materials to the dam site and removing trees from the site. It can be reasonably assumed that accidents will increase as a result of traffic tie ups and impatient drivers. The Gross Dam Road, over which the trucks must pass, is steep, with several sharp turns, hair pins and low visibility. After a snow fall the road can become quite icy. It also becomes extremely dusty in the summer time.</p> <p>An extensive area bordering the dam project is Colorado State Park and/or Boulder County open space. These parks were created because they were undeveloped and quiet with almost no disruption of the migratory patterns of wildlife and birds of prey. The nearly constant noise generated by the quarrying of materials for the dam, the construction traffic, helicopters removing twenty thousand trees, blasting is in no way compatible with the way this unique area has evolved since the time Gross Dam was originally constructed.</p> <p>The Corps did not consider conservation and modified usage of water in the service area of the Denver Water Board. We understand that the Denver metropolitan area uses water at a rate per capita that is significantly higher than other metropolitan areas not located in such an arid climate zone. It is our opinion that the Corps should deny the permits to continue and recommend that the Denver Water Board institute an aggressive campaign to conserve and reuse its water.</p> <p>Thank You for your attention to this matter,</p> <p>Sincerely,  Amalia J. Fisher</p>	<p>Comment #1625-3 (ID 1615): <i>Among issues which were ignored or insufficiently investigated in the draft environmental impact statements are the effects of the proposed project on the citizens who live in the Coal Creek Canyon area.</i></p> <p>Response #1625-3: FEIS Section 5.19 provided additional analysis and discussion as appropriate regarding impacts to communities surrounding Gross Reservoir.</p> <p>Comment #1625-0 (ID 1614): <i>Traffic disruption, for instance; we understand that we can expect 60 trucks a day hauling materials to the dam site and removing trees from the site. It can be reasonably assumed that accidents will increase as a result of traffic tie ups and impatient drivers. The Gross Dam Road, over which the trucks must pass, is steep, with several sharp turns, hair pins and low visibility. after a snow fall the road can become quite icy. It also becomes extremely dusty in the summer time. An extensive area bordering the dam project is Colorado State Park and/or Boulder County open space. These parks were created because they were undeveloped and quiet with almost no disruption of the migratory patterns of wildlife and birds of prey. The nearly constant noise generated by the quarrying of materials for the dam, the construction traffic, helicopters removing twenty thousand trees, blasting is in no way compatible with the way this unique area has evolved since the time Gross Dam was originally constructed.</i></p> <p>Response #1625-0: Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. An average of 60 commuter vehicles could make the trip daily to the reservoir. The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>responsible for ensuring that Colorado attains, maintains, and enforces the NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare.</p> <p>For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with all applicable noise ordinances.</p> <p>Denver Water evaluated several tree removal options. Limited road access to the reservoir shore, steep slopes and large rock outcrops complicate tree removal in most areas along the shoreline. Ground-based systems are proposed where roads exist or where temporary road construction is possible. Hydro-axing is proposed in the upper reaches of Forsythe Canyon due to steep slopes and heavy rock. Helicopter yarding is proposed where road access is not available or impossible to construct. The tree removal plan shows several possible landing sites for helicopters during tree removal and some of these are below the Lakeshore neighborhood. Due to the expense of using helicopters, Denver Water would keep the use of helicopters to a minimum. Denver Water would develop the final tree removal plan in cooperation with the USFS, Colorado State Forest Service, and Boulder County. Denver Water has proposed working with the USFS to identify recycling opportunities. The current Forest Management Plan is under the authority of FERC in a joint effort with the USFS. The Corps believes that Denver Water would comply with any conditions required by FERC.</p> <p>Comment #1625-1 (ID 1613): <i>The Corps did not consider conservation and modified usage of water in the service area of the Denver Water Board. We understand that the Denver metropolitan area</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>uses water at a rate per capita that is significantly higher than other metropolitan areas not located in such an arid climate zone. It is our opinion that the Corps should deny the permits to continue and recommend that the Denver Water Board institute an aggressive campaign to conserve and reuse its water.</i></p> <p>Response #1625-1: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>As shown in Table 1-1 in FEIS Section 1.4.1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be</p>

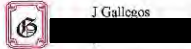
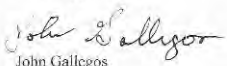
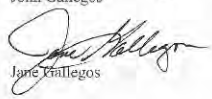
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A (Supplemental Evaluation of Denver Water Demand Projections) and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water is in the process of completing a Recycling Project that will use reusable supplies to meet an annual demand of 17,500 AF. Denver Water is also in the process of constructing 30,000 AF of gravel pit reservoir storage downstream of Denver. The storage facilities would be used to manage reusable supplies by storing excess reusable supplies in time of surplus, and releasing the stored reusable supplies at times of shortage. The gravel pits would be used for the following purposes:</p> <ol style="list-style-type: none"> 1. Perform exchanges to upstream facilities. In an exchange, reusable water is added to a stream at a downstream location to enable diversion of a like amount of water at an upstream location. 2. Deliver the reusable water to the Recycling Plant, treat the water, and distribute it for non-potable uses. The recycling plant requires gravel pit storage to supply reusable water to the Recycle Plant, via exchange, when reusable water is not available at



Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Metro WWTP or Bi-City WWTP.</p> <ol style="list-style-type: none"> 3. Deliver an annual supply of 5,000 AF of reusable water to South Adams County Water and Sanitation District (per agreements). 4. Use reusable water to augment raw water systems in the Denver Metropolitan area (e.g., augment the wells used to supply water to Denver parks). <p>The reusable water needed to support these projects was included in the PACSM simulations and therefore less reusable water is available for a new project. These projects were not on-line in from 1998 to 2008 as noted in the comment, but once these projects are completed, the average annual available unused reusable effluent is estimated to be approximately 7,600 AF. This is an example of why it is inappropriate to simply rely on historical values to draw conclusions.</p> <p>As shown in the DEIS Table 2-9, the estimated 7,600 AF of average annual unused reusable water ranges from to zero AF some years, to as high as approximately 37,500 AF in one year. The highest year of unused return flows does occur in a dry year, but many other dry years and periods have less than the 6,700 AF average. Project alternatives that included 5,000 AF of yield using the reusable return flows were analyzed. Alternative that included more than 5,000 AF would have been even more expensive on a cost per AF basis. Also note that with PACSM, Denver Water's unused reusable return flows are used and reused to extinction.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1626 John and Jane Gallegos</p>	<div style="text-align: center;">  <p>J. Gallegos</p> </div> <p>February 1, 2010</p> <p>Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton Co 80128</p> <p><u>Attention Scott Franklin, Moffat IIS Project Mgr.</u></p> <p>Dear Mr. Franklin</p> <p>We are writing these letters to the Denver Water Co., as well as to you - enclosed is a copy from both John and Jane Gallegos of Coal Creek Canyon.</p> <p>Your name was given to us as a possible resource for the situation we have in our area. Perhaps you are not the one to address these issues, but will be kind enough to pass the thoughts and concerns on to the appropriate person.</p> <p>We appreciate your answers to our concerns - they are valid and sincere - and we know if we lived up here in the 50's when the dam was originally built, the EPA, as well as any other regulatory authority would not allow this to happen. Fast forward to 2010, the dam is in, they have been good neighbors - do we really want this to happen to our beautiful area... isn't there another way the task can be accomplished without such massive disruption and degradation of the natural beauty so many folks enjoy?</p> <p>We would surely appreciate a response to our concerns.</p> <p>Sincerely yours,</p> <div style="text-align: center;">  <p>John Gallegos</p>  <p>Jane Gallegos</p> </div>	<p>Comment #1626-1 (ID 1616): <i>We are writing these letters to the Denver Water Co., as well as to you - enclosed is a copy from both John and Jane Gallegos of Coal Creek Canyon. Your name was given to us as a possible resource for the situation we have in our area. Perhaps you are not the one to address these issues, but will be kind enough to pass the thoughts and concerns on to the appropriate person. We appreciate your answers to our concerns - they are valid and sincere - and we know if we lived up here in the 50's when the dam was originally built, the EPA, as well as any other regulatory authority would not allow this to happen. Fast forward to 2010, the dam is in, they have been good neighbors - do we really want this to happen to our beautiful area... isn't there another way the task can be accomplished without such massive disruption and degradation of the natural beauty so many folks enjoy? We would surely appreciate a response to our concerns.</i></p> <p>Response #1626-1: The Corps conducted a detailed alternative screening process for the Moffat Project that considered over 300 water sources and infrastructure structural components (Alternatives Screening Report, Corps 2007) including agricultural water transfer, municipal reuse, and various storage locations. In addition to Special Conditions outlined in a Corps' Section 404 Permit, Denver Water would comply with all applicable Federal, State, and local regulations and obtain the appropriate land development permits prior to construction in Boulder County. Denver Water would also work closely with Boulder County to minimize to the extent possible, noise, dust, and traffic congestion in the Project area during construction.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1627 Dennis and Kristene Hall</p>	<div style="text-align: center;">  </div> <p>To: U.S. Army Corps of Engineers Attn: Scott Franklin Moffat EIS Project Mgr 9307 S. Wadsworth Blvd. Littleton, Colorado 801208</p> <p>From: Dennis & Kristene Hall [Redacted]</p> <p>Date: December 16, 2009</p> <p>Subject: Denver Water's Moffat Collection System Project Why would we object to this project?</p> <p>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents.</p> <p>Here are a few of our objections:</p> <ul style="list-style-type: none"> • Our roads are already congested with heavy traffic. (Construction vehicles, trash trucks, delivery trucks, power company trucks, Union Pacific Railroad vehicles, Denver Water, CDOT, School buses, bicycle riders, motorcycles, ski traffic, tourists, hikers, fishing men & women, RTD and the local traffic are a few examples.) • The roadsides have become a dumping ground for the litterbugs. • Wildlife is constantly being killed by traffic. • The environment is extremely fragile and is already subjected to heavy human intervention. • The constant flow of construction labor and materials will further erode the environment. • The noise level will become unacceptable. • Air quality will be affected. • Our property values will decrease. • Our water wells may become unusable or even dry up. • Our home foundations may become unstable. • Heavy vehicle traffic with heavy railroad traffic will cause a major accident. • The potential for forest fires will greatly increase. <p>Coal Creek Canyon and rock quarries do not mix well. Promises and guarantees cannot be made. Accountability is always pointed at someone else. Political influences must be removed from this decision making process.</p> <p>We urge this project to be located outside of Coal Creek Canyon and away from all existing communities.</p> <p>Dennis & Kristene Hall</p> 	<p>Comment #1627-1 (ID 1626): <i>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents. Here are a few of our objections:</i></p> <p>Response #1627-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1627-2 (ID 1625): <i>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents. Here are a few of our objections: • Our roads are already congested with heavy traffic. (Construction vehicles, trash trucks, delivery trucks, power company trucks, Union Pacific Railroad vehicles, Denver Water, CDOT, School buses, bicycle riders, motorcycles, ski traffic, tourists, hikers, fishing men & women, RTD and the local traffic are a few examples.) • The roadsides have become a dumping ground for the litterbugs. • Wildlife is constantly being killed by traffic. • The environment is extremely fragile and is already subjected to heavy human intervention. • The constant flow of construction labor and materials will further erode the environment.</i></p> <p>Response #1627-2: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1627-3 (ID 1624): <i>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents. Here are a few of our objections: • The noise level will become unacceptable.</i></p> <p>Response #1627-3: All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1. Construction activities (e.g., tree removal, helicopters, concrete batch plant, gravel pit) would not operate every day for 5 years. For example, tree removal is expected to take 6 to 8 months (DEIS Section 2.3.2.1), a majority of the quarry activity would take place prior to construction (DEIS Section 2.3.2.1), and blasting would likely take place at the end of the day.</p> <p>Comment #1627-4 (ID 1623): <i>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents. Here are a few of our objections: • Air quality will be affected.</i></p> <p>Response #1627-4: The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces the NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare. A Corps' Section 404 Permit, if issued for one of the Moffat EIS alternatives, will require that construction activities conform to Colorado State Air Quality standards.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1627-5 (ID 1622): <i>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents. Here are a few of our objections: • Our property values will decrease.</i></p> <p>Response #1627-5: An expanded analysis of impacts to communities surrounding Gross Reservoir was included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Comment #1627-6 (ID 1621): <i>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents. Here are a few of our objections: • Our water wells may become unusable or even dry up.</i></p> <p>Response #1627-6: As described in the DEIS, the Moffat Project would not adversely impact water wells. It would not cause any wells to become unusable. Raising the level of Gross Reservoir may even have a favorable effect on wells near Gross Reservoir and downstream along South Boulder Creek. The Project would have no effect on wells in Coal Creek Canyon.</p> <p>Blasting for excavation and construction at the Gross Reservoir Dam would create relatively minor shock waves, and may cause slight vibrations to be felt in the nearby area. The blasting vibrations would not affect groundwater levels or the aquifers from which the wells draw groundwater.</p> <p>Studies of blasting effects at other sites have shown that the vibratory shock waves generally do not have any effect on water wells. However, some studies have noted the possibility that if there were an old or poorly</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>constructed well located within 300 feet of the blasting zone, the blasting vibrations could cause corrosion-weakened pipe in the well to bend or collapse. Other studies have noted that blasting vibrations could cause a slight agitation of the well water or water in rock fractures near the well to surge, which could cause a temporary suspension of fine grained sediment in the well. For wells very near the blasting, this shaking could cause the well water to appear slightly turbid for a short time until water from the well bore is flushed out. There are no known residences or water wells within 300 feet of the dam. Thus, there is not likely to be any effect on water wells in the area due to the blasting needed to raise the dam at Gross Reservoir.</p> <p>Numerous engineering studies have been performed at other blasting sites to evaluate potential impacts to aboveground structures and groundwater. Many of these studies have focused on blasting of overburden rocks for surface coal mines because the magnitude of these blasts are larger than is typical for dam construction projects. An extensive listing of references of the effects of blasting is provided on the Appalachian Region Technology Transfer Blasting Download Page, Office of Surface Mining Reclamation and Enforcement, Rules, Regulations, Research and Resources. On that website, the section on vibrations and water wells provides two notable sources of pertinent information. Hawkins (2000) summarizes case history studies by Siskind and Kopp (1987) that found no adverse effects of the mine blasting to water wells, except for some instances of temporary turbidity increases in the well water. In a study commissioned by the Office of Surface Mining, entitled "Comparative Study of Domestic Water Well Integrity to Coal Mine Blasting" (Stephens 2002) concluded, "No adverse impacts to domestic water wells from surface coal mine blasting were measured during this study.</p>


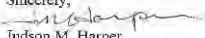
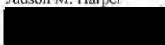
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1627-7 (ID 1620): <i>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents. Here are a few of our objections: • Our home foundations may become unstable.</i></p> <p>Response #1627-7: Intermittent blasting by explosives such as ANFO would occur during the early phases of construction as aggregate supplies are needed for dam construction. Blasting would be designed specifically for Gross Dam and would create ground vibrations and land motion appropriate for the dam structure to sustain. A seismograph would be used to monitor the blasting operations to ensure that acceleration thresholds are not exceeded. The land motion created from blasting recedes rapidly from the source (i.e., the dam) and would be insufficient to collapse wells or create unstable foundations.</p> <p>Comment #1627-8 (ID 1619): <i>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents. Here are a few of our objections: • Heavy vehicle traffic with heavy railroad traffic will cause a major accident.</i></p> <p>Response #1627-8: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77S, SHs 72, 93, 128, U.S. Highway 287 (US 287), Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During peak construction period, about 35 trucks could deliver</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p> <p>Comment #1627-9 (ID 1618): <i>As a homeowner in Coal Creek Canyon since 1980, we have seen the slow deterioration of the landscape for the convenience of the Denver/Boulder residents. Here are a few of our objections: • The potential for forest fires will greatly increase.</i></p> <p>Response #1627-9: Information about the potential for forest fires has been added to the vegetation analysis in the FEIS Section 5.7.</p> <p>Comment #1627-10 (ID 1617): <i>Coal Creek Canyon and rock quarries do not mix well. Promises and guarantees cannot be made. Accountability is always pointed at someone else. Political influences must be removed from this decision making process. We urge this project to be located outside of Coal Creek Canyon and away from all existing communities.</i></p> <p>Response #1627-10: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1628 Judson M. Harper</p>	<div style="text-align: right; margin-bottom: 10px;">  February 6, 2010 </div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Re: Moffat Expansion Project</p> <p>Justification for the project is the presumed need for more water in the Denver Metropolitan area. Denver area's need for more water can be met through increased conservation. Currently over 60% of single family water use is directed toward outdoor lawn and landscape watering. The Moffat project is not the least environmentally damaging alternative to provide metropolitan water needs unless Denver adopts significant conservation measures.</p> <p>It is essential that adequate stream flows be maintained in the Fraser, Williams Fork and Colorado Rivers to maintain aquatic habitat. It is my understanding that the diversions contemplated by the Moffat project would mean that the flow in these rivers would be reduced to about 25% of native flows. Any diversions made by the Moffat project would need to guarantee sufficient flows to maintain these rivers ecosystems (adequate flows, flushing and stream temperatures).</p> <p>I am a property owner on Hurd Creek that is a tributary of the Fraser River. I am concerned that the quality of the rivers in this area of Colorado be maintained for future generations. This means that any changes in the current system resulting from the projects implementation are monitored and the entire EIS be reopened in the event that biological damage occurs. Denver's ownership of water rights does not permit them to develop a project that would permanently degrade the environment associated with the river systems impacted.</p> <p>Sincerely,  Judson M. Harper  </p>	<p>Comment #1628-1 (ID 1629): <i>Justification for the project is the presumed need for more water in the Denver Metropolitan area. Denver area's need for more water can be met through increased conservation. Currently over 60% of single family water use is directed toward outdoor lawn and landscape watering. The Moffat project is not the least environmentally damaging alternative to provide metropolitan water needs unless Denver adopts significant conservation measures.</i></p> <p>Response #1628-1: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1628-2 (ID 1628): <i>It is essential that adequate stream flows be maintained in the Fraser, Williams Fork and Colorado Rivers to maintain aquatic habitat. It is my understanding that the diversions contemplated by the Moffat project would mean that the flow in these rivers would be reduced to about 25% of native flows. Any diversions made by the Moffat project would need to guarantee sufficient flows to maintain these rivers ecosystems (adequate flows, flushing and steam temperatures).</i></p> <p>Response #1628-2: DEIS Section 3.1 presented information that demonstrates the hydrologic effects of upstream trans-basin diversions and increased water use over time in the upper Fraser River Basin and along the Colorado River mainstem at Windy Gap. DEIS Table 3.1-10 summarized the effects of historical Moffat Collection</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>System diversions on native flow at the Fraser River at Winter Park gage. On average, Denver Water diverted approximately 50% of the average annual native flow at the Fraser River at Winter Park gage for the 30-year period from 1975 through 2004.</p> <p>The percentage of native flow diverted by Denver Water depends on the location in the basin. Denver Water would divert over 90% of the native flow with the Moffat Project on-line from some small tributaries that do not have bypass flow requirements. Denver Water would divert about 76% of the native flow at the Winter Park gage with the Moffat Project on-line. At the Granby gage located near the mouth of the Fraser River, Denver Water's average annual Moffat Collection System diversions represent approximately 41% of the native flow. Tables showing the percentage of native flow diverted by Denver Water under Current Conditions (2006), Full Use of the Existing System and the proposed Moffat Project flow are included in in FEIS Appendix H.</p> <p>Current problems caused by low flows during the late summer and in dry years are partially due to operations of the existing Moffat Project. The proposed Project would not cause additional flow reductions during those times since there would be no additional diversions due to the Project in the late summer or in dry years. There would be no additional diversions in dry years because Denver Water would divert the maximum amount physically and legally available under its existing water rights without additional storage on-line. Denver Water would be responsible for mitigating for the effects of reduced stream flows caused by a Moffat Project.</p> <p>Additional temperature analysis was performed for the Fraser River and the Colorado River (see FEIS Sections 4.6.2 and 5.2). FEIS Section 5.11 contains an evaluation of the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic biological resources in the Project area. Potential mitigation for</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>High spring flows would still occur with the Moffat Project on-line. FEIS Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all of Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years; however, the figures in FEIS Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Additional information on high flows was added to FEIS Sections 4.6.1 and 5.1. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes. Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 contains an evaluation on the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic biological resources in the Project area. Potential mitigation for predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, a review of historic photos, a sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is now discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11. An analysis was</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analyses that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Additional analysis has been performed on temperature impacts in the Fraser River Basin. Please refer to FEIS Sections 4.6.2 and 5.2. Information was added to the FEIS on stream segments listed on the 2012 Section 303(d) List (as available on CDPHE's website as Regulation 93). Denver Water's Conceptual Mitigation Plan is included in FEIS Appendix M. Where required, mitigation will be prepared as part of a Section 404 Permit.</p> <p>Based on temperature monitoring by the Grand County Water Information Network (GCWIN) in 2007 and 2008, most of the monitoring results indicate that stream temperatures in the Fraser River Basin and upper Colorado River are within State regulatory standards. Temperatures exceeding the regulatory limit have occurred in the Fraser River and Ranch Creek in July and August. Reductions in stream flow associated with the Moffat Project during the summer months could contribute to higher water temperature on hot summer days. The DEIS identified negligible to moderate temperature impacts on the Fraser River and Ranch Creek. In addition, the Colorado River, between Windy Gap Reservoir and Kremmling, can have low flows in the late summer and experience elevated water temperatures on hot summer days. The DEIS identified negligible temperature impacts on this portion of the Colorado River associated with the Moffat Project. Denver Water would continue its participation in and support of GCWIN to monitor stream temperatures in the</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Fraser River Basin and Colorado River. In addition, Denver Water would work with the Municipal Subdistrict of the Northern Water Conservancy District (NWCD) to install and monitor two continuous real-time temperature monitoring stations on the Colorado River to be located at the Windy Gap stream gage and upstream of the Williams Fork River confluence. If specified temperature values are exceeded in August, Denver Water would forgo up to 250 AF of diversions from its Fraser River Collection System after August 1 by releasing 4 cfs if the Proposed Action of the Moffat Project is diverting. The 250 AF is an estimate of the amount of diversion caused by the Proposed Action during the month of August. Denver Water, the Municipal Subdistrict of the NWCD, and other stakeholders would work together to establish the specific temperature thresholds.</p> <p>The effect of high water temperatures and flushing flows on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11. The analyses of channel morphology, specifically the anticipated response of the streams to projected flow changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, a review of historic photos, a sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1628-3 (ID 1627): <i>I am a property owner on Hurd Creek that is a tributary of the Fraser River. I am concerned that the quality of the rivers in this area of Colorado be maintained for future generations. This means that any changes in the current system resulting from the projects implementation are monitored and the entire EIS be reopened in the event</i></p>

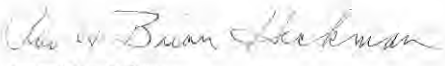

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>that biological damage occurs. Denver's ownership of water rights does not permit them to develop a project that would permanently degrade the environment associated with the river systems impacted.</i></p> <p>Response #1628-3: The Corps notes the comment.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1629 Ann and Brian Heckman</p>	<div style="text-align: right; margin-bottom: 10px;">  </div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Co. 80128</p> <p style="text-align: right;">February 1, 2010</p> <p>Dear Mr. Franklin,</p> <p>We are very concerned about the proposal to take 76% of the Colorado River and tributary water supply for the people of Denver. We have owned a home in Grand County for 27 years, raising 3 sons, teaching school, and participating in community affairs. This concern echoes the voices of people within the area. This additional water will dry up many wetlands, diminish development and potential and threaten the rural lifestyle of the entire western slope of Colorado; this includes the most scenic country in Colorado used traditionally for skiing, vacationing, agriculture, and fish. The water used will be siphoned at the source.</p> <p>Our recommendation includes: Any permits approved for this project should require adequate flow protections for low flows but also periodic flushing flows, which are vital to maintaining healthy habitats.</p> <p>§ The cities that now seek to take more water from the Fraser should adopt stronger water conservation measures – particularly for landscaping changes that can reduce outdoor water use, where there is much potential for greater water savings. I have an apartment in Denver as my husband teaches part time at a local university. Daily commute is not an option. I see firsthand waste of water in caring for lawns. Sprinkling systems are left to run, wasting water as it runs down the street.</p> <p>§ The US Army Corps of Engineers must ensure that effective mitigation is in place to protect the natural environment and the local communities who rely on the Fraser River.</p> <p>§ The Moffat Firing project must be assessed – and mitigation required – with full recognition of the cumulative impacts of the Moffat system's existing and proposed diversions as well as other existing projects and the proposed Windy Gap Firing Project.</p> <p>§ Protections designed to address these effects must be included as mitigation requirements – not as unenforceable "enhancement" agreements as is currently contemplated by Denver Water.</p> <p>§ Permit requirements must include adequate protections for water quality, which suffers as a result of low flows and high temperatures. The Fraser already faces elevated water temperatures seasonally, and new diversions should be limited to prevent further degradation. Similarly, the diversions may exacerbate nutrient problems for Grand Lake.</p> <p>§ Mitigation measures for the project should integrate and implement the Grand County Stream Management Plan – a science based, cooperative effort to identify and protect flows needed to maintain viable river environments in the Colorado headwaters.</p>	<p>Comment #1629-5 (ID 1630): <i>The permit should put measures in place for "adaptive management" -so that, if mitigation efforts are failing to adequately protect the Fraser's water quality and aquatic life, additional steps will be taken.</i></p> <p>Response #1629-5: Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>Comment #1629-6 (ID 1631): <i>Mitigation measures for the project should integrate and implement the Grand County Stream Management Plan - a science based, cooperative effort to identify and protect flows needed to maintain viable river environments in the Colorado headwaters.</i></p> <p>Response #1629-6: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), channel morphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15). Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>The permit should put measures in place for "adaptive management" – so that, if mitigation efforts are failing to adequately protect the Fraser's water quality and aquatic life, additional steps will be taken.</p> <p>Thank you.</p> <p>Sincerely,</p>  <p>Ann and Brian Heckman Local Residents of Grand County</p> 	<p>Comment #1629-2 (ID 1636): <i>We are very concerned about the proposal to take 76% of the Colorado River and tributary water supply for the people of Denver. We have owned a home in Grand County for 27 years, raising 3 sons, teaching school, and participating in community affairs. This concern echoes the voices of people within the area. This additional water will dry up many wetlands, diminish development and potential and threaten the rural lifestyle of the entire western slope of Colorado; this includes the most scenic country in Colorado used traditionally for skiing, vacationing, agriculture, and fish. The water used will be siphoned at the source.</i></p> <p>Response #1629-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1629-1 (ID 1635): <i>Our recommendation includes: Any permits approved for this project should require adequate flow protections for low flows but also periodic flushing flows, which are vital to maintaining healthy habitats.</i></p> <p>Response #1629-1: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3. FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1629-3 (ID 1634): <i>The cities that now seek to take more water from the Fraser should adopt stronger water conservation measures - particularly for landscaping changes that can reduce outdoor water use, where there is much potential for greater water savings. I have an apartment in Denver as my husband teaches part time at a local university. Daily commute is not an option. I see firsthand waste of water in caring for lawns. Sprinkling systems are left to run, wasting water as it runs down the street.</i></p> <p>Response #1629-3: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

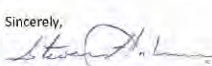


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1629-7 (ID 1633): <i>The US Army Corps of Engineers must ensure that effective mitigation is in place to protect the natural environment and the local communities who rely on the Fraser River. § The Moffat Firing project must be assessed - and mitigation required -with full recognition of the cumulative impacts of the Moffat system's existing and proposed diversions as well as other existing projects and the proposed Windy Gap Firing Project. § Protections designed to address these effects must be included as mitigation requirements - not as unenforceable "enhancement" agreements as is currently contemplated by Denver Water.</i></p> <p>Response #1629-7: The Corps will include specific mitigation measures that are enforceable through a Section 404 Permit, if issued. CDPHE will also include specific water quality mitigation measures that are enforceable through a Section 401 Certification. U.S. Fish and Wildlife Service (USFWS) will include specific requirements to protect threatened and endangered species that are enforceable through a Biological Opinion (BO). In addition, Denver Water has entered into three agreements that would enhance the existing environment and provide additional protections: Colorado River Cooperative Agreement (CRCA), LBD Cooperative Effort, and Fish and Wildlife Enhancement Plan, copies of which are provided in FEIS Appendix M. Each of these plans will be implemented through permanent agreements between the parties. The Corps will consider these agreements, along with all "reasonably foreseeable future actions" in its decision process regarding the proposed Moffat Project. These agreements are not intended to mitigate the impacts of the proposed Project; instead, the purpose is to improve existing conditions of aquatic environments in the Colorado River Basin should Gross Reservoir be enlarged.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line under the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>Comment #1629-4 (ID 1632): <i>Permit requirements must include adequate protections for water quality, which suffers as a result of low flows and high temperatures. The Fraser already faces elevated water temperatures seasonally, and new diversions should be limited to prevent further degradation. Similarly, the diversions may exacerbate nutrient problems for Grand Lake.</i></p> <p>Response #1629-4: Additional water quality analyses have been performed on the Fraser River and the Three Lakes area, including various temperature studies. Refer to FEIS Sections 4.6.2 and 5.2. Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit. Minimum flows are part of the discussion.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1632 Steven T. Johnson, CWP</p>	<p style="text-align: right;"><i>February 18, 2010</i></p> <p>Dear Mr. Franklin,</p> <p>I first came to the Fraser River Valley in 1967 when I was 18 years old. The Fraser River was a "real river" back then, and I remember the spring run-off was an awesome thing to behold. Through the years, I have watched this great fishing stream turn into the near lifeless waterway it is today. The impact that trans-mountain water diversion through the Moffat water tunnel has had on this valley, this county, and the entire Colorado River-way is in-calculable.</p> <p>I am a "certified water professional" by the State of Colorado, as a class "A" water treatment plant operator, and have been in the water/wastewater field for over 25 years. Here is an impact observation that I have seen that has occurred over the years as a result of the de-watering of the Fraser Valley by the front range. In 1967 the Fraser Experimental Forest, was a rain forest, that had moss growing in the trees both above and below the Denver Water collection system. Now, the natural environment here has changed, and it is warmer and drier than it has ever been. The trees are sick and dying, the moss no longer grows, and the bark beetle infestation is a direct result of climate change here which is a result in part by the de watering of this entire Fraser River watershed. The front range is already taking 60%, and now they want to divert 80% of these headwaters. This, is a travesty, and I implore you to not let this happen, not only for this generation, but for future generations of people who live here and come here to visit.</p> <p>I mentioned the spring run-off that would scour the rivers and clean them on a yearly basis. This does not happen any more, and creates silt build-up and slime on the river bed which in turn makes it really difficult for the trout to reproduce. This incredible riparian zone is being destroyed and sucked dry right before our very eyes. The water temperature of the river is warmer, the algae grows, the insect populations have changed, our beautiful river is dying.</p> <p>I personally invite you to come up here and I will personally show you the impact that the Denver water collection system has on this valley. They let a little water go by on the Vasquez drainage, and the Fraser river, and St. Louis Creek because they have to. I can show you how they completely dry up and take 100% of the water in other creeks like Iron Creek, Elk Creek, Jim Creek, Buck Creek, and the three forks of Ranch Creek, and other creeks and drainages through-out this entire valley. I can even show you where they have storm drains that collect rain run-off and natural springs flowing right out of the mountainside that flows directly into their collection system. I have pictures, to send to you if you would like. My cell phone number is [REDACTED] Call me.</p> <p style="text-align: right;">Sincerely,  Steven T. Johnson, cwp </p> <p style="text-align: center;">  </p> <p>Cc: EPA</p>	<p>Comment #1632-2 (ID 1641): <i>I first came to the Fraser River Valley in 1967 when I was 18 years old. The Fraser River was a "real river" back then, and I remember the spring run-off was an awesome thing to behold. Through the years, I have watched this great fishing stream turn into the near lifeless waterway it is today. The impact that trans-mountain water diversion through the Moffat water tunnel has had on this valley, this county, and the entire Colorado River-way is in-calculable.</i></p> <p>Response #1632-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1632-3 (ID 1640): <i>I am a "certified water professional" by the State of Colorado, as a class "A" water treatment plant operator, and have been in the water/wastewater field for over 25 years. Here is an impact observation that I have seen that has occurred over the years as a result of the de-watering of the Fraser Valley by the front range. In 1967 the Fraser Experimental Forest, was a rain forest, that had moss growing in the trees both above and below the Denver Water collection system. Now, the natural environment here has changed, and it is warmer and drier than it has ever been. The trees are sick and dying, the moss no longer grows, and the bark beetle infestation is a direct result of climate change here which is a result in part by the de-watering of this entire Fraser River watershed. The front range is already taking 60%, and now they want to divert 80% of these headwaters. This, is a travesty, and I implore you to not let this happen, not only for this generation, but for future generations of people who live here and come here to visit.</i></p> <p>Response #1632-3: The Corps notes the comment.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1632-4 (ID 1639): <i>I mentioned the spring run-off that would scour the rivers and clean them on a yearly basis. This does not happen any more, and creates silt build-up and slime on the river bed which in turn makes it really difficult for the trout to reproduce. This incredible riparian zone is being destroyed and sucked dry right before our very eyes. The water temperature of the river is warmer, the algae grows, the insect populations have changed, our beautiful river is dying.</i></p> <p>Response #1632-4: Additional evaluations of sediment transport and accumulation including, flows required to mobilize multiple particle sizes were conducted and the results are provided in FEIS Section 4.3. High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all of Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year</p>

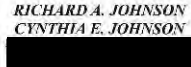

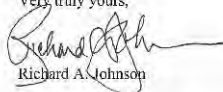
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years; however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to FEIS Sections 4.1 and 5.1. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, IHA, a computer model for calculating characteristics of altered hydrologic regimes, was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations.</p> <p>FEIS Section 3.11 documents the existing fish and invertebrate communities of the Fraser River. The river continues to sustain healthy fish and invertebrate communities with the existing withdrawals in the headwater streams. FEIS Section 5.11 evaluated the impacts of changes to sediment transport and flushing flows on aquatic resources, including trout, in the Project area.</p> <p>Additional information was added to FEIS Section 5.8 regarding the effects of changes in high flows (flows of greater than two-year return interval) on wetlands and riparian areas.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1632-1 (ID 1638): <i>I personally invite you to come up here and I will personally show you the impact that the Denver water collection system has on this valley. They let a little water go by on the Vasquez drainage, and the Fraser river, and St. Louis Creek because they have to. I can show you how they completely dry up and take 100% of the water in other creeks like Iron Creek, Elk Creek, Jim Creek, Buck Creek, and the three forks of Ranch Creek, and other creeks and drainages through-out this entire valley. I can even show you where they have storm drains that collect rain run-off and natural springs flowing right out of the mountainside that flows directly into their collection system. I have pictures, to send to you if you would like. My cell phone number is [REDACTED]. Call me.</i></p> <p>Response #1632-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1633 Richard A. Johnson</p>	<div style="text-align: center;">   </div> <p style="text-align: center;">November 16, 2009</p> <p><u>Via E-mail (moffat.eis@usace.army.mil) and U.S. Mail</u> Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Re: <i>Moffat Collection System Project/Comments to Draft Environmental Impact Statement</i></p> <p>Dear Mr. Franklin:</p> <p>Thank you for the opportunity to comment on the Draft Environmental Impact Statement ("Draft EIS") for Denver Water's proposed Moffat Collection System Project. We live in Eldorado Valley (east of Eldorado Springs) along South Boulder Creek. After reviewing the Draft EIS we remain very concerned that (i) Denver Water should mitigate the adverse impacts to the cold water fishery by providing meaningful winter releases to South Boulder Creek, and (ii) the storage of additional water in the headwaters of South Boulder Creek will have a detrimental effect on flushing flows which are important to aquatic life and habitat.</p> <p>The flows in South Boulder Creek during this time of year (fall and winter) drop dangerously low and are a real threat to the fishery (primarily brown trout). A meaningful effort to mitigate impacts to South Boulder Creek streamflows (particularly winter flows) should be a part of any permit issued in connection with this project.</p> <p>Thank you for your consideration of our comments and please notify us of further developments with respect to this project.</p> <p style="text-align: center;">Very truly yours,  Richard A. Johnson</p> <p style="text-align: center;">(00108171 / 1)</p>	<p>Comment #1633-4 (ID 1645): <i>Thank you for the opportunity to comment on the Draft Environmental Impact Statement ("Draft EIS") for Denver Water's proposed Moffat Collection System Project. We live in Eldorado Valley (east of Eldorado Springs) along South Boulder Creek.</i></p> <p>Response #1633-4: The Corps notes the comment.</p> <p>Comment #1633-3 (ID 1644): <i>After reviewing the Draft EIS we remain very concerned that (i) Denver Water should mitigate the adverse impacts to the cold water fishery by providing meaningful winter releases to South Boulder Creek</i></p> <p>Response #1633-3: The purpose of the Environmental Pool (FEIS Appendix M) is to provide a minimum stream flow in South Boulder Creek to the confluence of Boulder Creek during the winter period.</p> <p>Comment #1633-2 (ID 1643): <i>The storage of additional water in the headwaters of South Boulder Creek will have a detrimental effect on flushing flows which are important to aquatic life and habitat.</i></p> <p>Response #1633-2: The impact on flushing flows along South Boulder Creek due to the proposed Moffat Project would be minimal. Denver Water would divert more native South Boulder Creek water either to storage at Gross Reservoir or under their direct diversion right at the South Boulder Diversion Canal. These additional diversions would be infrequent and only occur in wet years during runoff because Denver Water's South Boulder Creek rights are relatively junior. During June when peak flows typically occurs, monthly average flows at the South Boulder Creek near Eldorado Springs gage would decrease by a</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>maximum of 11 cfs or 4% in average years and 24 cfs or 7% in wet years. These flow reductions would have little impact on flushing flows along South Boulder Creek.</p> <p>High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p>


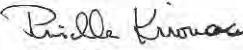

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1633-1 (ID 1642): <i>The flows in South Boulder Creek during this time of year (fall and winter) drop dangerously low and are a real threat to the fishery (primarily brown trout). A meaningful effort to mitigate impacts to South Boulder Creek streamflows (particularly winter flows) should be a part of any permit issued in connection with this project.</i></p> <p>Response #1633-1: It is not clear which part of the river this comment refers to. However, the Project would result in large increases in flow downstream of Gross Reservoir in winter. As discussed in the DEIS and FEIS Sections 4.6.11 and 5.11, this is expected to improve winter habitat for trout and have a beneficial impact in South Boulder Creek.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1634 Priscilla Kirouac</p>	<div style="text-align: center;">  </div> <p>Mr. Scott Franklin Moffat EIS Project Manager Corps of Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin,</p> <p>I am writing in regards to the proposed Denver Water Board and Northern Colorado Water Conservancy District "Firming" project. I want you to know I am vehemently opposed to the project. The Fraser River is in a fragile state because 60% of its water is already taken out and sent to Front Range users. Now through a ridiculous and antiquated set of first-use water laws you want to take another 12% for a total of 72% of the Fraser River. I doubt you could call the Fraser a river, maybe a trickle?</p> <p>It seems absurd to be raping the river so people on the Front Range can have a lawn; while at the same time leaving the river, fish, elk, moose, fox, bears and people in the Fraser Valley, to name a few users, without any water. In essence plundering and sending an entire ecosystem and extraordinarily beautiful part of our state into extinction for the sake of the people who live in a high desert but prefer to believe they live in a lush and temperate climate.</p> <p>I am not going to into all the arguments against the project, suffice it to say, that most of the local papers including The Denver Post, have been covering the issues on and off for years. I am sure you are familiar with the arguments; at least I hope you're familiar with both sides of the argument. Enough is enough; Front Range users must learn to live in the environment they've chosen. No more lawns, no more corporate offices and subdivisions with miles of sod wasting our precious fresh water. No more ITOAs that require sod rather than xeriscaping. No more transbasin diversions!</p> <p style="text-align: center;">Respectfully,</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Priscilla Kirouac</p> <div style="text-align: center;">  </div>	<p>Comment #1634-2 (ID 1648): <i>I am writing in regards to the proposed Denver Water Board and Northern Colorado Water Conservancy District "Firming" project. I want you to know I am vehemently opposed to the project.</i></p> <p>Response #1634-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1634-1 (ID 1647): <i>The Fraser River is in a fragile state because 60% of its water is already taken out and sent to Front Range users. Now through a ridiculous and antiquated set of first-use water laws you want to take another 12% for a total of 72% of the Fraser River. I doubt you could call the Fraser a river, maybe a trickle?</i></p> <p>Response #1634-1: DEIS Table 3.1-10 summarizes the effects of historical Moffat Collection System diversions on native flow at the Fraser River at Winter Park gage. On average, Denver Water diverted approximately 50% of the average annual native flow at the Fraser River at Winter Park gage for the 30-year period from 1975 through 2004. The percentage of native flow diverted by Denver Water depends on the location in the basin. Denver Water would divert over 90% of the native flow with the Moffat Project on-line from some small tributaries that do not have bypass flow requirements. Denver Water would divert about 76% of the native flow at the Winter Park gage with the Moffat Project on-line. At the Granby gage located near the mouth of the Fraser River, Denver Water's average annual Moffat Collection System diversions represent approximately 41% of the native flow. Tables showing the percentage of native flow diverted by Denver Water under Current Conditions, Full Use of the Existing System and the proposed Moffat Project flow were added to FEIS Appendix H.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1634-3 (ID 1646): <i>It seems absurd to be raping the river so people on the Front Range can have a lawn; while at the same time leaving the river, fish, elk, moose, fox, bears and people in the Fraser Valley, to name a few users, without any water. In essence plundering and sending an entire ecosystem and extraordinarily beautiful part of our state into extinction for the sake of the people who live in a high desert but prefer to believe they live in a lush and temperate climate. I am not going to into all the arguments against the project, suffice it to say, that most of the local papers including The Denver Post, have been covering the issues on and off for years. I am sure you are familiar with the arguments; at least I hope you're familiar with both sides of the argument. Enough is enough; Front Range users must learn to live in the environment they've chosen. No more lawns, no more corporate offices and subdivisions with miles of sod wasting our precious fresh water. No more HOAs that require sod rather than xeriscaping. No more transbasin diversions!</i></p> <p>Response #1634-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1636 Kirk Klancke</p>	 <div style="text-align: right;">  Kirk Klancke </div> <p>January 28, 2010</p> <p>U.S. Army Corp of Engineers Mr. Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Co. 80128</p> <p>Dear Sir:</p> <p>This letter is in response to the proposed Moffat Firing project draft Environmental Impact Statement.</p> <p>PURPOSE AND NEED STATEMENT: It is apparent that using water at Denver's present consumption rate, they will have a water shortage in the future. The purpose and need statement refers to the Board of Water Commissioners' commitment to its customers but Denver has committed 3,000 acre feet of the Moffat Firing water to the City of Arvada. This should not be construed as a shortage to Denver's system or a commitment to Denver's customers. In recognizing future shortfalls Denver has committed to developing 16,000 ac.ft. through conservation after they have striped West Slope resources of an additional 18,000 ac.ft. of surface water. Because the Fraser River is already an impaired river (American Rivers Most Endangered Rivers list 2005) Additional diversions should not be allowed until Denver has made a sincere effort to develop water conservation in earnest. A goal of 16,000 ac.ft. through conservation is less than 5% of Denver's water consumption. The Southern Nevada Water Authority has reduced their water use by 30% and Phoenix has reduced their water use by 38%. Denver, like these other municipalities, is located in an arid environment and needs to set realistic goals that fit that environment. With 50% of Denver's water use being outdoor lawn watering, there is the possibility of matching these other arid climate municipalities' conservation numbers by focusing on this water use. The draft EIS has a conservation goal that is way too modest and fails to mention how re-use water will be integrated to address their 34,000 ac.ft. near term shortfall. Non-potable recycling has become a popular way to develop water even in humid environments with plentiful ground water. (Ex. Ormand Beach, Florida) Denver owns 80,000 ac.ft. of re-use water rights which, along with conservation, need to be the first options in their purpose and need statement before further depleting the flows that the</p>	<p>Comment #1636-12 (ID 1660): <i>This letter is in response to the proposed Moffat Firing project draft Environmental Impact Statement.</i> PURPOSE AND NEED STATEMENT: <i>It is apparent that using water at Denver's present consumption rate, they will have a water shortage in the future. The purpose and need statement refers to the Board of Water Commissioners' commitment to its customers but Denver has committed 3,000 acre feet of the Moffat Firing water to the City of Arvada. This should not be construed as a shortage to Denver's system or a commitment to Denver's customers. In recognizing future shortfalls Denver has committed to developing 16,000 ac.ft. through conservation after they have striped West Slope resources of an additional 18,000 ac.ft. of surface water. Because the Fraser River is already an impaired river (American Rivers Most Endangered Rivers list 2005) Additional diversions should not be allowed until Denver has made a sincere effort to develop water conservation in earnest. A goal of 16,000 ac.ft. through conservation is less than 5% of Denver's water consumption. The Southern Nevada Water Authority has reduced their water use by 30% and Phoenix has reduced their water use by 38%. Denver, like these other municipalities, is located in an arid environment and needs to set realistic goals that fit that environment. With 50% of Denver's water use being outdoor lawn watering, there is the possibility of matching these other arid climate municipalities' conservation numbers by focusing on this water use. The draft EIS has a conservation goal that is way too modest and fails to mention how re-use water will be integrated to address their 34,000 ac.ft. near term shortfall. Nonpotable recycling has become a popular way to develop water even in humid environments with plentiful ground water. (Ex. Ormand Beach, Florida) Denver owns 80,000 ac.ft. of re-use water rights which, along with conservation, need to be the first options in their purpose and need statement before further depleting the flows that the West Slope Environment relies on. This is just one issue that the scope of purpose</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>West Slope Environment relies on. This is just one issue that the scope of purpose and need statement is too narrow to acknowledge. The scope of the purpose and need statement needs to be broadened to include aggressive conservation and re-use alternatives.</p> <p>WETLANDS PROTECTION: The EPA Wetland Regulatory Authority requires 404 permit applicants to show that they have, to the extent practicable, taken steps to avoid wetland impacts. Denver Water's draft EIS fails to recognize all of the impacts that the West Slope wetlands will experience by reduction of the high flows from the rivers hydrograph. The ground water levels in the wetland areas are directly related to the river's flows. (fig.8 Final baseline Hydrology for Compensatory Wetland Mitigation Plan, Town of Winter Park Shops Expansion Project, USACE SPK-2008-752) Dropping the river's flows will drop the ground water levels in the wetlands. (See attached graph) Dropping ground water levels will directly impact which species of wetlands plants can survive. Losing out of bank flows will also directly impact wetlands plants including the recruitment of cottonwood trees. The draft EIS acknowledges that "flood flows and areas of inundation would decrease in the affected river basins on the West Slope under the alternatives". These flood flows dictate the abundance and variety of the wetlands plants. The decreasing flood flows and areas of inundation from this project directly impact hundreds of acres of wetlands on the West Slope. Impacting herbaceous plant composition and replacing these plants with species that can live under dryer conditions is not an acceptable option to me and it should not be to the Corp of Engineers who our Nation has given the responsibility to regulate 404 permits in a manner that will protect and preserve all wetlands plants. The total permanent impacts to wetlands listed on page ES-28 of the Moffat Filing draft EIS Executive Summary is grossly underestimated and the final EIS needs to be re-written to include all of the impacted wetland areas on the West Slope and address mitigations to keep all species of wetland plants that are presently being sustained by present river flows sustained after the proposed project is implemented.</p> <p>WILD LIFE: Only 3% of the land mass in Colorado is wetlands. 90% of Colorado's wildlife relies on the wetland areas during their lifetime. Impacting hundreds of acres of wetlands on the West Slope will impact the wildlife that relies on all of the species of wetland plants. The draft EIS is not accurate when it downplays the impacts that changing wetland plant species will have on wildlife. Magnified over hundreds of acres, the impact from changing wetland plant species will be noticeable and needs to be addressed as an impact and mitigated.</p> <p>AQUATIC BIOLOGICAL RESOURCES: To claim that there will be no changes to water quality or channel geomorphology is failing to admit to obvious impacts and avoiding the necessary mitigation. Existing flows are failing to move the 6,000 tons of traction sand that enter the Fraser River each year from the sanding of the west side of Berthoud Pass. (See attached picture taken below the Denver Water diversion on the Fraser River) The stream channel geomorphology is radically changed from that of native flows and could be the collapse of the river if high</p>	<p><i>and need statement is too narrow to acknowledge. The scope of the purpose and need statement needs to be broadened to include aggressive conservation and re-use alternatives.</i></p> <p>Response #1636-12: Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>Denver Water entered into an Intergovernmental Agreement (IGA) with Arvada in 1999, which allowed Arvada the option to participate in a project which would increase yield to the Moffat Collection System. If a project is not developed (No Action Alternative), Denver Water does not have an obligation to provide Arvada with up to 3,000 AF/yr. However, Arvada would still have this demand to be met without an identified supply. Therefore, it is a reasonable and conservative approach to include the 3,000 AF in the predicted 2032 demand in the analysis.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil</p>

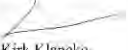
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>flows are removed and traction sand continue to migrate into the Fraser. Fish counts in a similar creek (St. Louis Creek) that doesn't have the migration of traction sand entering it are 10 times higher than the Fraser River at the same elevation. Taking flows from the high end of the hydrograph will allow even more life choking sediment to remain in the Fraser River. The mitigation that must be offered in the final EIS is periodic flushing flows on the main stem of the Fraser River and other heavily sediment laden tributaries of the Fraser, such as Ranch Creek. I have spent a lot of time over the last 4 decades on both of these streams and have personally witnessed heavy amounts of sediment at today's flow rates.</p> <p>A water quality change that has alarmed me over the last 4 decades is the increase in stream temperatures. As the Front Range grows our stream temperatures have risen. Being taught by savvy fly fisherman I have been instructed to walk away from a fishery when water temperatures are over 65 degrees F. because the trout are impaired at that temperature. I have lost more fishing days due to temperature in the last 10 years than I did in the previous 30. Some of these recent temperature readings have reached over 70 degrees F. which is known to kill a cold water fishery. The temperature changes noted have correlated with lower flows. To decrease flow on the West Slope will place the cold water fishery at even greater risk. Denver Water's EIS must acknowledge this impact and offer adequate mitigation to keep the existing cold water fishery alive.</p> <p>Another water quality impact caused by lowering stream flows is weeds and algae putting an oxygen demand on the river. The increase of weed and algae growth in the Fraser River and in Ranch Creek over the last 40 years is alarming. Decreasing flows and removing the high end of the hydrograph will exacerbate the already existing weed and algae problem. The EIS must address both the impact and the mitigation of weed and algae control in West Slope streams and rivers that will be increased by even greater reductions in stream flow.</p> <p>RECREATION:</p> <p>While admitting to major impacts of decreased boating as a result of the reduction in the number of available use days, the draft EIS offers no mitigation for this impact. While only a few thousand boaters recreated in Grand County in the 1980s' over 45,000 boated in our county last summer. Diminishing the number of boating days will have a very large and serious socioeconomic impact on Grand County. Flow changes will have negative impacts on boating, fishing and the visual or aesthetic appeal of our rivers. The Grand County economy relies on tourism which is driven by these three important factors. The draft EIS acknowledges the negative impacts that all three of these factors will experience but offers no mitigation. The EIS will not be complete until all three of these factors have been mitigated and the socioeconomic impacts on the West Slope caused by this project resolved.</p> <p>CUMULATIVE IMPACTS:</p> <p>When combined with the Windy Gap Firming project the diminished native flows in the Upper Colorado River will be left at 24%. The profound impacts of 76% of the native flows of the headwaters of the Colorado River being lost forever cannot be understated. Unfortunately, the draft EIS states only that the Moffat firming project "may result in a cumulative effect on the environment". Can a river sustain with only 24% of its native</p>	<p>amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>When Denver Water plans for future growth, additional conservation is considered in the demand estimates as shown in FEIS Table 1-1. Denver Water's estimated 2032 demand is 379,000 AF after accounting for Natural Replacement and Conservation Savings since 1980 and prior to 2002 (as well as 3,000 AF/yr for the Arvada contract). After backing out the 16,000 AF/yr for additional conservation, Denver Water's estimated 2032 demand is 363,000 AF.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>All water delivered by Denver Water to its customers is classified as reusable or non-reusable. Reusable water can be used and reused to extinction. Use of reusable water increases Denver Water's system supply and reduces the amount of water diverted from other components of the system. The main sources of reusable water in Denver Water's Collection System are the Blue River water delivered through the Roberts Tunnel, Fraser River water diverted by the Meadow Creek system (the only reusable water associated with the Moffat Collection System), and transferred agricultural water rights on the East Slope. The Metro WWTP and the Bi-City WWTP are the primary return points of Denver Water's reusable water. Denver Water keeps track of reusable return flows and currently uses, or is planning to use, most of its reusable supplies through river exchanges, transfers to gravel pits, and to supply water for a non-potable recycling project. As shown in FEIS Table 2-9, approximately 7,600 AF/yr on average of unused return flows would be available</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>flows? Before this project can be approved, Denver Water, the Northern Water Conservation District, the US Bureau of Reclamation and the US Army Corp of Engineers will have to be sure of the answer, because the consequences will be a result of their decision. The future of the Colorado River is in their hands.</p> <p>GRAND COUNTY STREAM FLOW MANAGEMENT PLAN: Grand County government has provided the scientific data in their stream flow management plan to establish guidelines to maintain healthy streams. Denver Water needs to use these guidelines when regulating their diversions. Use of this valuable tool will guide the diversion process to produce their yield without pushing a river to a point that it can not recover from. The future of our rivers needs to be in the hands of scientists and not business men and politicians. The Grand County Stream Flow Management Plan must be tied to the mitigation offered in the final EIS.</p> <p>RE-OPENER CLAUSE: Because the future of the headwaters of the Upper Colorado River is at risk with any decisions that we make today, it is imperative that we allow ourselves the ability to re-open the EIS process if we find that the mitigation settled on for this project falls short of maintaining the biological stream health of the rivers and streams on the West Slope. Other decisions concerning stream health made in the past have proven to fall short of maintaining healthy streams. A good example is the lease agreement between Denver Water and the U.S. Forest Service in the 1950s². The bypass flows set in that agreement have proven to not maintain stream health and yet we will have to live with them for perpetuity. This EIS needs to allow future generations of Colorado to monitor the health of the stream and have the ability to hold those who harm the health of the stream, accountable for the proper mitigations that will keep our streams healthy. A long term mitigation is the only way that the health of our streams can be assured of being maintained.</p> <p>SHOSHONE CALL: The stream modeling assumptions used in creating the draft EIS are based on the Shoshone call always being in existence. The Shoshone call is prone to be sporadic at best. Assuming consistent and permanent operation of the Shoshone call flaws any information used by the stream modeling in the draft EIS. Without the Shoshone call, stream flows as modeled will not exist. With periodic shutdowns of the Shoshone call the stream modeling used is inconsistent at best. Denver Water needs to run their flow models without the influence of the Shoshone call so that worst case scenarios for flows in the Colorado River headwaters can be fully understood.</p> <p>STREAM MODELING: The stream modeling used in the Moffat Filing draft EIS is flawed and inaccurate because of the use of monthly and daily averages in the stream models. The draft EIS</p>	<p>primarily in the winter months, when Denver Water's customer demands, non-potable demands, and exchange potential are relatively low. The amount of unused reusable supplies available varies considerably from year to year, ranging from 0 AF to as much as 37,555 AF/yr. Refer to FEIS Section 1.3.1 (subheading, Non-Potable Recycling Facility).</p> <p>When Denver Water plans for future growth, additional conservation is considered in the demand estimates. As shown in FEIS Table 1-1, Denver Water projected demand of 363,000 AF has been reduced by existing conservation (29,000 AF) and the future conservation (16,000 AF). Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives.</p> <p>Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2. Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>uses daily averages to model stream temperature when it is the chronic high temperatures that threaten the cold water fishery. These high temperatures have reached 70+ degrees F. at present diversion rates. With increased diversions the number of 70+ degree F. days will increase but by using daily averages in their modeling these high temperatures do not show up as an impact and therefore no mitigation is proposed. The terminal water temperature for the cold water fishery is 70 degrees F..</p> <p>CULTURAL AND HISTORIC IMPACTS The Fraser River and its tributaries attracted President Dwight David Eisenhower to the Fraser Valley to fly fish before and after he became President. A monument size sculpture of Eisenhower is located in the Town of Fraser along the banks of the Fraser River and yet the draft EIS claims that there are no cultural or historical impacts from this project. The dewatering of our Presidential river and streams is viewed as a huge cultural and historical impact. A site visit to Fraser would better help Denver Water to understand the historical significance of the Fraser River. Besides a 9 foot sculpture along the river, that can be plainly seen from the highway, the Cozen's Ranch Museum has an entire room devoted to Eisenhower's fly fishing trips. Our cultural heritage is the Fraser River and impacting this river impacts our cultural heritage.</p> <p>In conclusion, I feel very strongly that the preferred alternative (enlarging Gross reservoir) will give the most flexibility to allow mitigations that will keep the rivers and streams on the West Slope healthy. Water Quality issues are most apparent during warm months with low flows. Additional water storage on the East Slope can make mitigations like higher late summer and fall flows possible. Of course Denver Water has to offer these mitigations in their EIS before the preferred alternative can become an acceptable option. Denver Water refers to a separate negotiation for environmental enhancement opportunities in their draft EIS. These negotiations need to be tied to approval of the EIS to assure that everything that can be done to maintain the health of the headwaters of the Upper Colorado River will be committed to.</p> <p>Sincerely,</p>  Kirk Klancke cc Environmental Protection Agency	<p>program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water, on average, has approximately 66,000 AF of water available for re-use and it is reused the following ways: exchange to upstream reservoirs (22,000 AF), diverted to downstream reservoirs (16,000 AF), re-use plant (13,000 AF), and recycle reservoirs (8,000 AF). This leaves approximately 8,000 AF of unused reusable effluent available for use. The use of unused reusable return flows was evaluated in several alternatives in the EIS process – Alternatives 6, 7, 8, 10, 11, and 14. These alternatives were configured to meet a portion or all of the new firm yield requirements with reusable effluent. Alternatives 6a and 6b are specifically indirect potable reuse alternatives. Alternatives 7, 8, 10, 11, and 14 are variations of indirect potable reuse alternatives that involve treating reusable water, storing it, and delivering it back to the Moffat Collection System. Alternatives 6, 7, and 14 were screened out due to cost (Screen 1C) because they had high relative costs associated with advanced water treatment and residual disposal. Alternative 11 was screened out because it was determined after further evaluation that sufficient unused reusable effluent supplies were not available to meet the entire firm yield requirement of 18,000 AF/yr. Therefore, even if Alternatives 6, 7, and 14 were not screened out for cost, they would be screened out because there is not sufficient unused reusable effluent supplies available to meet the entire firm yield requirement of 18,000 AF/yr. Alternatives 8a and 10a, which include indirect potable reuse to meet 5,000 AF/yr of the firm yield requirement, were considered “practicable” alternatives and are evaluated in the EIS. Refer to DEIS Section 2.1 and Appendix B for information on the alternatives screening process.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">Final Baseline Hydrology Report for Compensatory Wetland Mitigation Plan Town of Winter Park Shops Expansion Project USACE SPK-2008-752</p> <p style="text-align: center;">Figure 8: Study Area Hydrology for 2009, All GroundWater Monitoring Wells 22May to 3Aug. Note strong correlation between groundwater elevations in wells, and between wells and river flows.</p> <p style="text-align: center;">Grand Environmental Services * September 10, 2009</p>	<p>Comment #1636-11 (ID 1659): WETLANDS PROTECTION: The EPA Wetland Regulatory Authority requires 404 permit applicants to show that they have, to the extent practicable, taken steps to avoid wetland impacts. Denver Water's draft EIS fails to recognize all of the impacts that the West Slope wetlands will experience by reduction of the high flows from the rivers hydrograph. The ground water levels in the wetland areas are directly related to the river's flows. (SEE SOURCE FILE FOR FIGURE 8, FINAL BASELINE HYDROLOGY FOR COMPENSATORY WETLAND MITIGATION PLAN, TOWN OF WINTER PARK SHOPS EXPANSION PROJECT, USACE SPK-2008-752) Dropping the river's flows will drop the ground water levels in the wetlands. (SEE FIGURE 8 IN SOURCE FILE) Dropping ground water levels will directly impact which species of wetlands plants can survive. Losing out of bank flows will also directly impact wetlands plants including the recruitment of cottonwood trees. The draft EIS acknowledges that "flood flows and areas of inundation would decrease in the affected river basins on the West Slope under the alternatives". These flood flows dictate the abundance and variety of the wetlands plants. The decreasing flood flows and areas of inundation from this project directly impact hundreds of acres of wetlands on the West Slope. Impacting herbaceous plant composition and replacing these plants with species that can live under dryer conditions is not an acceptable option to me and it should not be to the Corp of Engineers who our Nation has given the responsibility to regulate 404 permits in a manner that will protect and preserve all wetlands plants. The total permanent impacts to wetlands listed on page ES-28 of the Moffat Firing draft EIS Executive Summary is grossly underestimated and the final EIS needs to be re-written to include all of the impacted wetland areas on the West Slope and address mitigations to keep all species of wetland plants that are presently being sustained by present river flows sustained after the proposed project is implemented.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	 <p style="text-align: center;"><i>Traction Sand from Highway 40 and Berthoud Pass</i></p>	<p>Response #1636-11:</p> <p>The FEIS includes new information regarding the connections between surface flows and groundwater, in FEIS Sections 5.4 and 5.8, and additional information on the relationship between flood flows and riparian vegetation, in Section 5.8. Additional groundwater data was collected in Fall 2010 and is described in the FEIS to clarify the groundwater-surface water relationships downstream of Denver Water diversions. The analysis indicates there would be, at most, very small changes in the water table (groundwater level) directly beneath potentially affected stream segments. In all of the areas measured, water levels were higher in nearby wetlands than in the stream. The height of the alluvial water table can be affected by several factors including groundwater movement from adjacent slopes, spring snowmelt, and evapotranspiration, in addition to surface flows and flood events.</p> <p>More information has been added to FEIS Section 5.8.1.2 regarding the effects of changes in high flows (flows of greater than 2-year return interval) on wetlands and riparian areas, including recruitment of cottonwoods.</p> <p>The analysis of impacts to riparian habitat included both direct losses of habitat from construction and inundation at Gross Reservoir (DEIS Section 4.6.1.1), and discussion of indirect impacts due to stream flow changes along the Fraser River and other rivers (DEIS Section 4.6.1.2). The DEIS did address the existing diversions in DEIS Section 4.6.1.2. Impacts from lower flow levels cannot be measured in the same way as the direct impacts shown in Tables 4.6-1 and 4.6-3 of the DEIS and in most cases would involve a shift in vegetation type rather than loss or full conversion to upland. An accurate quantitative summary of acres of indirect impacts in a format like Table 4.6-3 is not possible and a table of indirect impacts would be misleading if it were presented.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1636-9 (ID 1658): <i>WILD LIFE: Only 3% of the land mass in Colorado is wetlands. 90% of Colorado's wildlife relies on the wetland areas during their lifetime. Impacting hundreds of acres of wetlands on the West Slope will impact the wildlife that relies on all of the species of wetland plants. The draft EIS is not accurate when it downplays the impacts that changing wetland plant species will have on wildlife. Magnified over hundreds of acres, the impact from changing wetland plant species will be noticeable and needs to be addressed as an impact and mitigated.</i></p> <p>Response #1636-9: The analysis of impacts to riparian habitat included both direct losses of habitat from construction and inundation at Gross Reservoir (DEIS Section 4.6.1.1), and discussion of indirect impacts due to stream flow changes along the Fraser River and other rivers (DEIS Section 4.6.1.2). Impacts from lower flow levels cannot be measured in the same way as the direct impacts shown in DEIS Tables 4.6-1 and 4.6-3, and in most cases would involve a shift in vegetation type rather than loss or full conversion to upland. In the DEIS, impacts were evaluated based on changes in two-year flows and changes in groundwater. The FEIS includes additional analysis of impacts to riparian vegetation from flow events of greater than two-year return period. These results support a conclusion that impacts to riparian and wetland areas would generally be minor. Although impacts to wildlife are also generally considered to be minor, the FEIS wildlife impacts analysis has been expanded to provide more information.</p> <p>Comment #1636-10 (ID 1657): <i>AQUATIC BIOLOGICAL RESOURCES: To claim that there will be no changes to water quality or channel geomorphology is failing to admit to obvious impacts and avoiding the necessary mitigation. Existing flows are failing to move the 6,000 tons of traction sand that enter the Fraser River each year from the sanding of the west</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>side of Berthoud Pass. (See attached picture taken below the Denver Water diversion on the Fraser River) The stream channel geomorphology is radically changed from that of native flows and could be the collapse of the river if high flows are removed and traction sand continue to migrate into the Fraser.</i></p> <p><i>Fish counts in a similar creek (St. Louis Creek) that doesn't have the migration of traction sand entering it are 10 times higher than the Fraser River at the same elevation. Taking flows from the high end of the hydrograph will allow even more life chocking sediment to remain in the Fraser River. The mitigation that must be offered in the final EIS is periodic flushing flows on the main stem of the Fraser River and other heavily sediment laden tributaries of the Fraser, such as Ranch Creek. I have spent a lot of time over the last 4 decades on both of these streams and have personally witnessed heavy amounts of sediment at today's flow rates. A water quality change that has alarmed me over the last 4 decades is the increase in stream temperatures. As the Front Range grows our stream temperatures have risen. Being taught by savvy fly fisherman I have been instructed to walk away from a fishery when water temperatures are over 65 degrees F. because the trout are impaired at that temperature. I have lost more fishing days due to temperature in the last 10 years than I did in the previous 30. Some of these resent temperature readings have reached over 70 degrees F. which is known to kill a cold water fishery. The temperature changes noted have correlated with lower flows. To decrease flow on the West Slope will place the cold water fishery at even greater risk. Denver Water's EIS must acknowledge this impact and offer adequate mitigation to keep the existing cold water fishery alive. Another water quality impact caused by lowering stream flows is weeds and algae putting an oxygen demand on the river. The increase of weed and algae growth in the Fraser River and in Ranch Creek over the last 40 years is alarming. Decreasing flows and removing the high end</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>of the hydrograph will exacerbate the already existing weed and algae problem. The EIS must address both the impact and the mitigation of weed and algae control in West Slope streams and rivers that will be increased by even greater reductions in stream flow.</i></p> <p>Response #1636-10: Most of the additional diversions with the Project would occur in May, June, and July of wet and average years, as discussed in FEIS Sections 4.6.1 and 5.1. There would be no additional diversions in dry years. Therefore, the additional diversions usually would not occur during the late summer period of highest water temperatures. A revised discussion of channel characteristics, sedimentation, low flows, and high water temperatures in the Fraser River was added to FEIS Sections 3.11, 4.6.11, and 5.11. Mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>Comment #1636-8 (ID 1656): <i>RECREATION: While admitting to major impacts of decreased boating as a result of the reduction in the number of available use days, the draft EIS offers no mitigation for this impact. While only a few thousand boaters recreated in Grand County in the 1980s' over 45,000 boated in our county last summer. Diminishing the number of boating days will have a very large and serious socioeconomic impact on Grand County. Flow changes will have negative impacts on boating, fishing and the visual or aesthetic appeal of our rivers. The Grand County economy relies on tourism which is driven by these three important factors.</i></p> <p><i>The draft EIS acknowledges the negative impacts that all three of these factors will experience but offers no mitigation. The EIS will not be complete until all three of these factors have been mitigated and the socioeconomic impacts on the West Slope caused by this project resolved.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1636-8: Impacts to the economy of the area are addressed in FEIS Section 5.19.</p> <p>Comment #1636-7 (ID 1655): <i>CUMULATIVE IMPACTS: When combined with the Windy Gap Firming project the diminished native flows in the Upper Colorado River will be left at 24%. The profound impacts of 76% of the native flows of the headwaters of the Colorado River being lost forever cannot be understated. Unfortunately, the draft EIS states only that the Moffat firming project "may result in a cumulative effect on the environment". Can a river sustain with only 24% of its native flows? Before this project can be approved, Denver Water, the Northern Water Conservation District, the US Bureau of Reclamation and the US Army Corp of Engineers will have to be sure of the answer, because the consequences will be a result of their decision. The future of the Colorado River is in their hands.</i></p> <p>Response #1636-7: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>from the Fraser River watershed, the C-BT Project, and the Windy Gap Project.” Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1636-6 (ID 1654): <i>GRAND COUNTY STREAM FLOW MANAGEMENT PLAN: Grand County government has provided the scientific data in their stream flow management plan to establish guidelines to maintain healthy streams. Denver Water needs to use these guidelines when regulating their diversions. Use of this valuable tool will guide the diversion process to produce their yield without pushing a river to a point that it can not recover from. The future of our rivers needs to be in the hands of scientists and not business men and politicians. The Grand County Stream Flow Management Plan must be tied to the mitigation offered in the final EIS.</i></p> <p>Response #1636-6: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required, including Adaptive Management for mitigation.</p> <p>Comment #1636-5 (ID 1653): <i>RE-OPENER CLAUSE: Because the future of the headwaters of the Upper Colorado River is at risk with</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>any decisions that we make today, it is imperative that we allow ourselves the ability to reopen the EIS process if we find that the mitigation settled on for this project falls short of maintaining the biological stream health of the rivers and streams on the West Slope. Other decisions concerning stream health made in the past have proven to fall short of maintaining healthy streams. A good example is the lease agreement between Denver Water and the U.S. Forest Service in the 1950s'. The bypass flows set in that agreement have proven to not maintain stream health and yet we will have to live with them for perpetuity. This EIS needs to allow future generations of Colorado to monitor the health of the stream and have the ability to hold those who harm the health of the stream, accountable for the proper mitigations that will keep our streams healthy. A long term mitigation is the only way that the health of our streams can be assured of being maintained.</i></p> <p>Response #1636-5: If issued, a Section 404 Permit would include a statement that the Corps can re-evaluate and re-condition the Section 404 Permit as conditions warrant.</p> <p>Comment #1636-4 (ID 1652): <i>SHOSHONE CALL: The stream modeling assumptions used in creating the draft EIS are based on the Shoshone call always being in existence. The Shoshone call is prone to be sporadic at best. Assuming consistent and permanent operation of the Shoshone call flaws any information used by the stream modeling in the draft EIS. Without the Shoshone call, stream flows as modeled will not exist. With periodic shutdowns of the Shoshone call the stream modeling used is inconsistent at best. Denver Water needs to run their flow models without the influence of the Shoshone call so that worst case scenarios for flows in the Colorado River headwaters can be fully understood.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1636-4:</p> <p>The Shoshone call reduction per the agreement between Denver Water and Xcel Energy (Shoshone Agreement) is analyzed as a reasonable foreseeable action in Section DEIS 5.3.1 subheading, Reduction of Xcel Energy's Shoshone Power Plant Call. The analysis of the Shoshone call reduction describes the potential frequency and magnitude of hydrologic effects when the call reduction is in place. Denver Water diverted an additional 4,739 AF in 2003 and 14,141 AF in 2004 due to the relaxation of the Shoshone call in those years. While Denver Water's diversions may increase under a Shoshone Call reduction, diversions with or without the Moffat Project would be the same since available storage capacity in Gross Reservoir would not be a limiting factor in dry years when the Shoshone Call reduction would be invoked per the Shoshone Agreement.</p> <p>The Shoshone Agreement would provide limited additional water to the Moffat Collection System because Denver Water retains enough water in Williams Fork Reservoir to exchange against out-of-priority diversions in the Moffat Collection System. The elimination of a call at the Xcel Shoshone Power Plant was not considered as a RFFA because there isn't reasonable certainty as to the likelihood of that action occurring within the same projected time period at the Moffat Project.</p> <p>The CRCA (as described in FEIS Section 4.3) provides for an agreement between several water users which would help protect flows in the Colorado River resulting from the exercise of the Shoshone power plant water rights. These parties have agreed to operational procedures which, under specific conditions, would ensure water releases from participants' reservoirs regardless of the operational status of the Shoshone power plant. Issues surrounding the operation of the Shoshone power plant are not a result of the proposed Project. Modeled stream flows along the Colorado River downstream to the confluence with the Williams Fork</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>River would also be similar with or without a Shoshone call since diversions at Windy Gap are more often constrained by the instream flow requirements below Windy Gap as opposed to the Shoshone call. Windy Gap did not divert any additional water when the Shoshone call was off in 2004, which is considered typical of Windy Gap benefits during call reductions. While Windy Gap gained more water in 2003 due to the Shoshone call relaxation, the supply available to Windy Gap was higher in 2003 than it would likely be in most years the call is relaxed. Late-season snow increased runoff significantly in 2003 which resulted in considerably more water available for Windy Gap pumping than would normally be the case when the call is relaxed per the terms of the current agreement.</p> <p>Comment #1636-1 (ID 1651): <i>STREAM MODELING: The stream modeling used in the Moffat Firming draft EIS is flawed and inaccurate because of the use of monthly and daily averages in the stream models. The draft EIS uses daily averages to model stream temperature when it is the chronic high temperatures that threaten the cold water fishery. These high temperatures have reached 70+ degrees F. at present diversion rates. With increased diversions the number of 70+ degree F. days will increase but by using daily averages in their modeling these high temperatures do not show up as an impact and therefore no mitigation is proposed. The terminal water temperature for the cold water fishery is 70 degrees F.</i></p> <p>Response #1636-1: Additional water quality analysis was performed for the Fraser River, including evaluation of temperature. Additionally, evaluation of modeled daily stream flow was also performed. Please see FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1636-3 (ID 1650): <i>CULTURAL AND HISTORIC IMPACTS The Fraser River and its tributaries attracted President Dwight David</i></p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Eisenhower to the Fraser Valley to fly fish before and after he became President. A monument size sculpture of Eisenhower is located in the Town of Fraser along the banks of the Fraser River and yet the draft EIS claims that there are no cultural or historical impacts from this project. The dewatering of our Presidential river and streams is viewed as a huge cultural and historical impact. A site visit to Fraser would better help Denver Water to understand the historical significance of the Fraser River. Besides a 9 foot sculpture along the river, that can be plainly seen from the highway, the Cozen's Ranch Museum has an entire room devoted to Eisenhower's fly fishing trips. Our cultural heritage is the Fraser River and impacting this river impacts our cultural heritage.</i></p> <p>Response #1636-3: An investigation of cultural resources in Grand County was not undertaken because no physical alterations of existing conditions are proposed in Grand County. The analysis shows that the changes in stream flow due to the action alternatives would result in little or no impacts to cultural resources; therefore, this information was not evaluated in the EIS.</p> <p>Comment #1636-2 (ID 1649): <i>In conclusion, I feel very strongly that the preferred alternative (enlarging Gross reservoir) will give the most flexibility to allow mitigations that will keep the rivers and streams on the West Slope healthy. Water Quality issues are most apparent during warm months with low flows. Additional water storage on the East Slope can make mitigations like higher late summer and fall flows possible. Of course Denver Water has to offer these mitigations in their EIS before the preferred alternative can become an acceptable option. Denver Water refers to a separate negotiation for environmental enhancement opportunities in their draft EIS. These negotiations need to be tied to approval of the EIS to assure that everything that can be done to maintain the health of the headwaters of the Upper Colorado River will be</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>committed to.</i></p> <p>Response #1636-2: The Corps will include specific mitigation measures that are enforceable through a Section 404 Permit, if issued. CDPHE will also include specific water quality mitigation measures that are enforceable through a Section 401 Certification. USFWS will include specific requirements to protect threatened and endangered species that are enforceable through a BO. In addition, Denver Water has entered into three agreements that would enhance the existing environment and provide additional protections: CRCA, LBD Cooperative Effort, and Fish and Wildlife Enhancement Plan, copies of which are provided in FEIS Appendix M. Each of these plans will be implemented through permanent agreements between the parties. The Corps will consider these agreements, along with all “reasonably foreseeable future actions” in its decision process regarding the proposed Moffat Project. These agreements are not intended to mitigate the impacts of the proposed Project; instead, the purpose is to improve existing conditions of aquatic environments in the Colorado River Basin should Gross Reservoir be enlarged.</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1638 Victor and Yelena Lavrinenco</p>	<div style="text-align: center;">  </div> <p>Letters to Federal Energy Regulatory Commission and to the US Army Corps of Engineers Sec. Kimberly Bose Federal Energy Regulatory Commission 888 First Street NE Washington DC 20426</p> <p>Mr. Scott Franklin US Army Corps of Engineers 9307 South Wadsworth Blvd. Littleton, Co 80128-6901</p> <p>NOTE: the FERC project is #2035; the letter should be regarding project #2035, and dated FERC oversees environmental matters related to hydroelectric projects and in the management plan for Denver Water at Gross Reservoir says, "The overall landscape characteristics around the reservoir should remain natural appearing, with limited human intervention." In fact, 30 acres will be permanently destroyed, including the unreclaimed quarry.</p> <p style="text-align: center;">"Talking points," impacts and issues to address.</p> <p><u>I. Major Impacts.</u></p> <p>1. <u>Traffic in Coal Creek Canyon.</u> There will be haul trucks, lumber trucks and worker vehicles up and down the canyon, over four years. This is a major impact, and is not "temporary." That's like saying, "You will be temporarily sick for four years." FACT: 44-74 haul truck trips/day (260 days a year, 8am-3pm or longer); 202 worker vehicle trips/day.</p> <p>2. <u>Traffic safety issues are not addressed.</u> The Environmental Impact Statement does not address safety for bicyclists. In the summer, scores of bicyclists ride the canyon for pleasure and training. There is no bicycle lane. The danger to bicyclists by constant haul truck traffic will escalate; there will be deaths. Five enhanced pull-off areas on the highway will not solve this. We also have large groups of motorcyclists in the summer. The risks they will take are frightening to think about. The corner at United Power where all the trucks and vehicles will turn is tight and the community center is just across the highway. This is dangerous. Until these traffic safety issues are addressed and mitigation plans created, FERC and the US Army Corps of Engineers should not grant the permit to Denver Water.</p> <p>3. <u>The destruction from the excavation of a quarry on the edge of the reservoir, which will</u> <u>not be reclaimed, is correctly described as "permanent and major."</u> In all, 30 acres will be destroyed and above water level. This entire project is contrary to the goals of FERC, Boulder County and the National Forest Plan to maintain the land as "forested" and natural.</p> <p>4. <u>The loss of 20,000+ trees is a major, permanent impact.</u> From an environmental point of view, the fact that the land will be inundated with water is irrelevant. The carbon sink is gone.</p> <p>5. <u>Noise.</u> There is nothing "temporary and minor" about the sound of diesel engines, rock crushing, a cement plant and earth moving equipment, day and night at times, for four years. The Corps draft EIS says "At a distance greater than 50 ft. noise levels diminish rapidly." This is nonsense. At this altitude, sound carries easily through the dry air. We can hear a dog barking a mile away. Most significantly, sound travels upward. The residents all live above the reservoir. For some of us the noise may be muffled, for others it will be obtrusive, but for everyone it will be a constant background annoyance. Some of us live here because we crave the sound of silence and the wind in the trees; that will be gone. The statement by the Corps does not address mitigation of the noise impact. Denver Water should not be permitted to expand the dam until noise mitigation is addressed satisfactorily.</p> <p>6. <u>Quality of life.</u> The "quality of life" of Denver Water customers is repeatedly addressed under the No Action alternative, regarding the supposed hardships of water restrictions during drought that will ensue if Gross Reservoir is not expanded. Quality of life of those exposed to the</p>	<p>Comment #1638-2 (ID 1677): <i>FERC oversees environmental matters related to hydroelectric projects and in the management plan for Denver Water at Gross Reservoir says, "The overall landscape characteristics around the reservoir should remain natural appearing, with limited human intervention." In fact, 30 acres will be permanently destroyed, including the unreclaimed quarry. "Talking points," impacts and issues to address.</i></p> <p>Response #1638-2: The location of the quarry is illustrated on DEIS Figure 2-3 and details regarding the operation of the quarry are provided in DEIS Section 2.3. Visual impacts from the quarry at Gross Reservoir are discussed in DEIS Section 4.15.1.</p> <p>An additional mitigation measure has been added to FEIS Section 5.7.7 to address reclamation of the quarry site. The proposed quarry site would be primarily located on USFS land; therefore, Denver Water would work closely with the USFS to ensure appropriate revegetation of this site and any alternative quarry sites.</p> <p>Comment #1638-10 (ID 1676): <i>Traffic in Coal Creek Canyon. There will be haul trucks, lumber trucks and worker vehicles up and down the canyon, over four years. This is a major impact, and is not "temporary." That's like saying, "You will be temporarily sick for four years." FACT: 44-74 haul truck trips/day (260 days a year, 8am-3pm or longer); 202 worker vehicle trips/day.</i></p> <p>Response #1638-10: The CEQ regulations specify that the description of impacts in an EIS should identify how short-term uses of the environment would affect long-term productivity of resources. Short-term (temporary) is defined as the construction period through final reclamation, which is assumed to take up to 5 years. Long-term refers to the</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>construction of the dam, for years, is ignored. Driving in the canyon is already stressful and everything that is stressful about it will be compounded.</p> <p>7. <u>Western slope rivers.</u> The river basins on the western slope that feed Gross Reservoir are already being depleted. Adding 72,000 AF to Gross Reservoir from the western slope is a major impact. If Denver Water focused its resources more on conservation and less on expansion and "what if" scenarios, the western slope rivers and streams could be saved from further diversion. The US Army Corps of Engineers should not permit the reservoir; it should make Denver Water go back to the drawing board with a plan to eliminate the shortfall through conservation.</p> <p>8. <u>Urban sprawl.</u> The City of Arvada (contracted with Denver Water to receive 3,000 AF/yr from the expanded reservoir) and local developers are eagerly waiting to begin developing a large tract near the base of Coal Creek Canyon. Although the Corps is mandated to address growth and development in the Environmental Impact Statement, it fails to do so. This issue must be evaluated before granting a permit to Denver Water.</p> <p><u>II. Failure to demonstrate need and other issues:</u> The US Army Corps of Engineers is mandated to examine reasonable, practical and common sense alternatives to the problem, including no action. The Corps failed to do this because it failed to consider good conservation as an alternative, therefore the conclusion, that the best alternative is the maximum expansion of Gross reservoir, is invalid.</p> <p>1. Denver Water has not demonstrated a need for the proposed massive expansion of Gross Reservoir. Even if the projected shortfall of 18,000 AF by 2030 is correct, which is doubtful, Denver Water customers have demonstrated in times of drought, that they are capable of conserving water much more effectively than they are today. Right now water use is up 27% over the drought years (a lot of that is for lawns); there is great opportunity for innovative conservation today. We wouldn't be talking about "shortfall" if better conservation practices were in place today. A massive, and destructive, expansion of Gross Reservoir is an over-kill solution and will just encourage poor conservation.</p> <p>FACT: by watering lawns a few minutes less, customers can save 2 billion gallons of water and much more when it rains (9 billion last summer). One billion gallons = 3,000 AF.</p> <p>2. In a couple years, water supply and storage will increase significantly when the Rueter-Hess reservoir, (72,000 AF capacity) is finished and Chatfield Reservoir water is reallocated. These supply and storage capacities are not included in the calculations of the 18,000 AF/yr shortfall projected by the computer models used by Denver Water. The calculations are incorrect and therefore the Proposed Action is invalid.</p> <p>3. The "imbalance" between Denver Water's north and south systems is based on the relatively small storage capacity of Gross Reservoir compared to the whole south system. The argument for the huge expansion of Gross Reservoir is that if the two south water treatment plants go down, the north Moffat plant would be unable to supply Denver Water customers. Instead of the "build a bigger dam" approach, with a huge surplus, Denver Water should spend the \$353 million on a system of transporting water to the Moffat Water Treatment Plant in case of emergency. There is plenty of water in the south system, and more to come. The US Army Corps of Engineers should not grant the dam expansion permit and should encourage Denver Water to explore this alternative.</p> <p>4. The "carbon footprint" of the entire project is ignored in the draft Environmental Impact Statement. The US Army Corps of Engineers and FERC should reject Denver Water's application</p>	<p>period after the Moffat Project is completed and mitigation measures are in place. Transportation impacts were classified at "temporary" since they would occur during the construction period.</p> <p>Comment #1638-9 (ID 1675): <i>Traffic safety issues are not addressed. The Environmental Impact Statement does not address safety for bicyclists. In the summer, scores of bicyclists ride the canyon for pleasure and training. There is no bicycle lane. The danger to bicyclists by constant haul truck traffic will escalate; there will be deaths. Five enhanced pull-off areas on the highway will not solve this. We also have large groups of motorcyclists in the summer. The risks they will take are frightening to think about. The corner at United Power where all the trucks and vehicles will turn is tight and the community center is just across the highway. This is dangerous. Until these traffic safety issues are addressed and mitigation plans created, FERC and the US Army Corps of Engineers should not grant the permit to Denver Water.</i></p> <p>Response #1638-9: Denver Water met with CDOT regarding establishment of a bike path. However, Denver Water's consultant and CDOT evaluated this option and determined that establishing a bike path would not be feasible due to safety concerns, and space and cost constraints.</p> <p>The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Comment #1638-8 (ID 1674): <i>The destruction from the excavation of a quarry on the edge of the reservoir, which will not be reclaimed, is</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>for permits until this is addressed. It is inexcusable that up to 30,000 trees could be destroyed, tons of carbon put into the atmosphere from destruction of this carbon sink and use of many diesel engines on site, and diesel trucks, and the only concern in the draft EIS is air quality. Loss of trees is a major, permanent impact that is not addressed.</p> <p>5. Projecting a 34,000 AF/yr shortfall by 2030 is misleading. The real shortfall is 18,000 AF/yr since Denver Water accepts that customers will conserve 16,000 a year by 2030. In fact, the projected shortfall of 18,000 AF/yr is also misleading since customers can conserve much more than 16,000 AF/yr. FERC and the Corps, and all the agencies hired to evaluate Denver Waters proposal for expansion of Gross reservoir fail to question the basic assumption upon which the proposed expansion rests – water shortfall. This assumption is not questioned, and neither are the data used to generate the "shortfall." The Corps should require that the data be updated in light of the current economic situation and current growth rate.</p> <p><u>Personal issues</u>, additional reasons to stop the project.</p> <p>Don't say home values won't go down – they will. Show me the data.</p> <p>In our area we don't have lawns, and cannot use water outside the house, or even collect it off the roof. In my opinion, Kentucky blue grass belongs in Kentucky.</p> <p>My kids drive to school up and down the canyon, with so much slow, road hogging traffic I will worry about them even more.</p> <p>I use the Canyon public transport van and I am on a schedule; delays will be more than inconvenient.</p> <p>I love to fish on the rivers and streams of the western slope. The increased diversion of water from these beautiful areas, to sprinkle on the lawns of Denver Waters customers is really maddening. I know that there is a better way, called conservation. People in Coal Creek Canyon know what conservation is all about, so it seems unfair that our lifestyle is jeopardized for the sake of Denver Water customers.</p> <p>I was so delighted when Gross Reservoir was finally opened to boaters four years ago. We have a kayak and finally had a place to use it nearby. The managers of Gross Reservoir, FERC and the US Forest Service, and Boulder County as well, were smart in designating it a forest area. If Denver Water succeeds in convincing the US Army Corps of Engineers and FERC that it must have a huge reservoir, that will be the end of boating, fishing and picnicking for a long time. No one would go there to hear the earth-crushing sounds of construction.</p> <p>NOTES: <i>Victor LAURINENKO Victor V Laurinenko 2.12.10</i> <i>Yelena LAURINENKO Yelena 2.12.10</i> </p>	<p><i>correctly described as "permanent and major." In all, 30 acres will be destroyed and above water level. This entire project is contrary to the goals of FERC, Boulder County and the National Forest Plan to maintain the land as "forested" and natural. 4. The loss of 20,000+ trees is a major, permanent impact. From an environmental point of view, the fact that the land will be inundated with water is irrelevant. The carbon sink is gone.</i></p> <p>Response #1638-8: As described in FEIS Section 2.3.2.1, mitigation for the quarry site includes a range of techniques, such as rock sculpting (shaping the exposed rock to mimic a natural rock face) and selective planting to break up the scale of the exposed area and soften the contrasts with adjacent areas. The use of rock staining would also be considered, provided a determination by Denver Water that its application would not create any water quality concerns. An additional mitigation measure has been added to FEIS Section 5.7.7 to address reclamation of the quarry site. The proposed quarry site and any alternative quarry sites would be located on USFS and Denver Water land. Denver Water would work with the USFS to ensure appropriate revegetation of these sites based on site conditions.</p> <p>Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p> <p>Greenhouse gas emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>Comment #1638-11 (ID 1673): <i>Noise. There is nothing "temporary and minor" about the sound of diesel engines, rock crushing, a cement plant and earth moving equipment, day and night at times, for four years. The Corps draft EIS says "At a distance greater than 50 ft. noise levels diminish rapidly." This is nonsense. At this altitude, sound carries easily through the dry air. We can hear a dog barking a mile away. Most significantly, sound travels upward. The residents all live above the reservoir. For some of us the noise may be muffled, for others it will be obtrusive, but for everyone it will be a constant background annoyance. Some of us live here because we crave the sound of silence and the wind in the trees; that will be gone. The statement by the Corps does not address mitigation of the noise impact. Denver Water should not be permitted to expand the dam until noise mitigation is addressed satisfactorily.</i></p> <p>Response #1638-11: The CEQ regulations specify that the description of impacts in an EIS should identify how short-term uses of the environment would affect long-term productivity of resources. Short-term (temporary) is defined as the construction period through final reclamation, which is assumed to take up to 5 years. Long-term productivity refers to the period after the Moffat Project is completed and mitigation measures are in place. Noise impacts were classified as "temporary" since they would occur during the construction period. On-site construction-related noise (e.g., construction machinery) is expected to create a temporary and moderate impact, meaning noise would be readily apparent and have measurable</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>effects of disturbance. Off-site construction related noise (e.g., construction traffic) is expected to create temporary and minor impacts, meaning noise level changes would be slight, but detectable, with some perceptible effects of disturbance. Additional noise impacts would occur from tree removal and residue disposal at Gross Reservoir. This activity would take approximately 6 to 8 months to complete and the specific timeline for tree removal would be determined during final design with the cooperation of CPW and the USFS. On-site temporary noise impacts would occur from timber harvest, yarding, and use of temporary roads. Noise levels would be similar to other construction activities and are not expected to exceed relevant standards and guidelines. Off-site impacts would occur from trucks hauling the forest residue (ash, chips, whole trees, logs, and/or firewood) to sites where they would be disposed or sold. Roads used for access would include Flagstaff Road (CR 77) east and north of the dam, Gross Dam Road (CR 77 South) from SH 72, CR 97, and CR 68, SH 72, and SH 93. Impacts are anticipated to be temporary and moderate.</p> <p>All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1. On-site construction noise could periodically exceed the EPA noise threshold of 70 A-weighted decibel scale (dBA) for public exposure, but the public would not be exposed to these levels on a continuous basis. The noise levels described in the EIS are predicted at distances of less than 50 feet from the source and would be temporary and remote. Sound travels omni-directionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 dB.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1638-14 (ID 1672): <i>Quality of life. The "quality of life" of Denver Water customers is repeatedly addressed under the No Action alternative, regarding the supposed hardships of water restrictions during drought that will ensue if Gross Reservoir is not expanded. Quality of life of those exposed to the construction of the dam, for years, is ignored. Driving in the canyon is already stressful and everything that is stressful about it will be compounded.</i></p> <p>Response #1638-14: Construction-related impacts are addressed in the FEIS. FEIS Section 5.19 provided additional analysis and discussion as appropriate, regarding impacts to communities surrounding Gross Reservoir.</p> <p>Comment #1638-6 (ID 1671): <i>Western slope rivers. The river basins on the western slope that feed Gross Reservoir are already being depleted. Adding 72,000 AF to Gross Reservoir from the western slope is a major impact. If Denver Water focused its resources more on conservation and less on expansion and "what if" scenarios, the western slope rivers and streams could be saved from further diversion. The US Army Corps of Engineers should not permit the reservoir; it should make Denver Water go back to the drawing board with a plan to eliminate the shortfall through conservation.</i></p> <p>Response #1638-6: The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and could seriously</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives.</p> <p>Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1638-12 (ID 1670): <i>Urban sprawl. The City of Arvada (contracted with Denver Water to receive 3,000 AF/yr from the expanded reservoir) and local developers are eagerly waiting to begin developing a large tract near the base of Coal Creek Canyon. Although the Corps is mandated to address growth and development in the Environmental Impact Statement, it fails to do so. This issue must be evaluated before granting a permit to Denver Water.</i></p> <p>Response #1638-12: The relationship between population growth and water development is discussed in DEIS Section 4.14.</p> <p>The Corps analyzed demand in the Project area based on demographic projections from various Federal and local sources. The Corps also independently evaluated the demand projections stated in Denver Water's Integrated Resources Plan (IRP), which will help guide water management over the next 40 years. As stated in DEIS Section 4.14 and FEIS Section 5.16: "Several recent studies have suggested that there is no substantive causal relationship between population growth and the development of water, or vice versa." One such study is summarized as follows:</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>The relationship between water and growth in the modern west is often misunderstood. Historically, it has been assumed that water development was a necessary precursor to growth and, similarly, that a lack of water development could act as a deterrent to growth. While these premises may have been true at one time, recent experience in Colorado and other western states shows both ideas are now unsupportable. To the contrary, many of the regions showing the highest rates of growth in the west – from Douglas County, Colorado to Las Vegas, Nevada – show the opposite trend; that is, growth is actually highest in some of the driest regions. Similarly the veto of the proposed Two Forks Dam on the East Slope by the EPA in 1990 certainly did not deter growth in the Denver Metropolitan area. Examples also suggest that an abundance of water is often insufficient to stimulate growth. The experience of Pueblo is illustrative (Nichols et al. 2001).</p> <p>Numerous other studies analyzing the relationship between growth and water reach similar conclusions, such as Western Land Use Trends and Policy: Implications for Water Resources (Riebsame 1997); Atlas of the New West (Center of the American West 1997); and Water in the West: The Challenge for the Next Century (Western Water Policy Review Advisory Commission 1998). This growth issue was evaluated and dismissed by the Corps during the NEPA analysis of the Two Forks Dam and Reservoir Project in 1988 – “As a result of including the No Federal Action scenario, the Corps was able to answer a major question then being asked – would growth continue in the Denver Metropolitan area without Federal approval of a major water supply project. The evaluation of the No Federal Action scenario determined that growth would occur regardless of Federal action” (Corps 1998, page 3-3 of the FEIS Metropolitan Denver Water Supply EIS, Volume 1).</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Independent studies, such as the State-wide Water Supply Initiative, commissioned by the State of Colorado, anticipate high growth rates for Colorado, including the East Slope. These high growth rates are certainly not independent of water supply, but are likely to occur regardless of what water projects are constructed.</p> <p>Comment #1638-5 (ID 1669): <i>Failure to demonstrate need and other issues: The US Army Corps of Engineers is mandated to examine reasonable, practical and common sense alternatives to the problem, including no action. The Corps failed to do this because it failed to consider good conservation as an alternative, therefore the conclusion, that the best alternative is the maximum expansion of Gross reservoir, is invalid.</i></p> <p>Response #1638-5: The Corps conducted a detailed alternative screening process for the Moffat Project that considered over 300 water sources and infrastructure structural components (Alternatives Screening Report, Corps 2007) including agricultural water transfer, municipal reuse, and various storage locations.</p> <p>Under NEPA, every EIS must analyze a No Action Alternative, which is what is expected to occur if the proposed Project does not get permitted. The EIS then compares the environmental effects of the action alternatives to those resulting from the No Action Alternative. In developing the No Action Alternative for the Moffat Project, the Corps consulted with Denver Water on what steps they would take to meet its water supply needs in the absence of the Moffat Project. Denver Water assumed that growth would still occur and identified ways to meet future water demands through operational controls. The Corps feels the steps outlined for various restriction scenarios were a reasonable approach for developing the No Action Alternative.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Water conservation is part of the solution for water supply projects. The Purpose and Need for the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. This Purpose and Need statement addresses a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This system imbalance leads to vulnerability (or lack of system flexibility) to respond to water collection system outages and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1638-15 (ID 1668): <i>Denver Water has not demonstrated a need for the proposed massive expansion of Gross Reservoir. Even if the projected shortfall of 18,000 AF by 2030 is correct, which is doubtful, Denver Water customers have demonstrated in times of drought, that they are capable of conserving water much more effectively than they are today. Right now water use is up 27% over the drought years (a lot of that is for lawns); there is great opportunity for innovative conservation today. We wouldn't be talking about "shortfall" if better conservation practices were in place today. A massive, and destructive, expansion of Gross Reservoir is an over-kill solution and will just encourage poor conservation. FACT: by watering lawns a few minutes less, customers can save 2 billion gallons of water and much more when it rains (9 billion last summer). One billion gallons = 3,000 AF.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1638-15: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Comment #1638-3 (ID 1667): <i>In a couple years, water supply and storage will increase significantly when the Rueter- Hess reservoir, (72,000 AF capacity) is finished and Chatfield Reservoir water is reallocated. These supply and storage capacities are not included in the calculations of the 18,000 AF/yr shortfall projected by the computer models used by Denver Water. The calculations are incorrect and therefore the</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Proposed Action is invalid.</i></p> <p>Response #1638-3: The EIS describes the potential cumulative effects that would result from the Moffat Project combined with other projects and activities based on NEPA and Section 404(b)(1) criteria. The regulations for implementing NEPA define cumulative impacts as the impact on the environment which results from the incremental impact of the action when added to other past, present, and RFFAs and regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). This regulation refers only to the cumulative impact of direct and indirect effects of the Proposed Action and its alternatives when added to the aggregate effects of past, present, and RFFAs.</p> <p>The Section 404 regulations state that "cumulative impacts are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems" (40 CFR 230.11[g][1]).</p> <p>The cumulative effects analysis for the Moffat Project evaluated past and present actions that continue to influence existing environmental conditions. The cumulative effects analysis also included reasonably foreseeable actions that, when combined with one of the Project alternatives, result in a cumulative effect on the environment. For purposes of organization of the EIS cumulative effects were evaluated in two timeframes: (1) past or ongoing present actions and (2) future actions. Each of these two timeframes includes a</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>discussion of water-based or land-based actions. The DEIS included a discussion of both the Ruetter-Hess Reservoir Project and the Chatfield Reservoir Reallocation Project in DEIS Section 5.3 as part of the cumulative effects analysis. These reservoirs are not part of Denver Water's Collection System and therefore do not provide a reliable supply to the CSA.</p> <p>Comment #1638-4 (ID 1666): <i>The "imbalance" between Denver Water's north and south systems is based on the relatively small storage capacity of Gross Reservoir compared to the whole south system. The argument for the huge expansion of Gross Reservoir is that if the two south water treatment plants go down, the north Moffat plant would be unable to supply Denver Water customers. Instead of the "build a bigger dam" approach, with a huge surplus, Denver Water should spend the \$353 million on a system of transporting water to the Moffat Water Treatment Plant in case of emergency. There is plenty of water in the south system, and more to come. The US Army Corps of Engineers should not grant the dam expansion permit and should encourage Denver Water to explore this alternative.</i></p> <p>Response #1638-4: Linking the South System and North System would not address the reliability, vulnerability and flexibility components of the Purpose and Need Statement. If Gross Reservoir empties, an interconnect requires the unimpeded operation of Denver Water's South System. Loss of operation of a portion of the South System could exacerbate the water supply reliability problem and possibly cause an interruption of service to customers if water cannot be delivered via the interconnect.</p> <p>Alternatives 4 and 5 evaluated during the screening process incorporated an interconnection between the South and North systems. In addition, portions of Conduit X were included in several alternatives (Alternatives 2, 3,</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>4, 5, 10c, 10d, 10e, and 11). However, Conduit X in its entirety was not considered in lieu of the South System interconnects included in Alternatives 4 and 5. South System interconnects high in the system from either the North Fork South Platte River at the Roberts Tunnel to the Bear Creek drainage (Alternative 4a) or from Dillon Reservoir to the Clear Creek drainage (Alternative 5) were included in lieu of Conduit X to address the location component of the Purpose and Need statement. New firm yield must be provided to the Moffat Treatment Plant to address reliability, vulnerability, and operational flexibility issues. The lower in the South Platte River system the interconnect is located, the more vulnerable and potentially less reliable Denver Water system is due to unplanned outages, including natural and manmade disasters.</p> <p>Denver Water's Collection System is vulnerable to natural and manmade disasters and system failures because approximately 90% of available reservoir storage and 80% of available water supplies rely on the unimpeded operation of Denver's South System Strontia Springs Reservoir. Loss of operation of any portion of the South System could require more water from the Moffat Collection System to meet customer's water demands.</p> <p>If an interconnect was located downstream of several of Denver Water's critical South System facilities, including Roberts Tunnel, Dillon Reservoir, Eleven Mile Reservoir, Cheesman Reservoir, Antero Reservoir and Strontia Springs Reservoir, Denver Water's system would remain vulnerable to unplanned outages. Loss of operation to these South Platte River facilities could affect the ability to deliver water to a downstream interconnect.</p> <p>In summary, the Purpose and Need of the Project is to add new yield to the Moffat system at the location where it is needed. A connection between the North and the South systems does not meet this Project purpose. Similarly, a South System connection does not help to</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>reduce the imbalance of the system and the vulnerability created by that imbalance. Various alternatives that used the South Platte Basin as a component of an alternative were considered. In addition, these alternatives did not survive the cost screen because of the high cost of delivery to the Moffat Collection System.</p> <p>Comment #1638-7 (ID 1665): <i>The "carbon footprint" of the entire project is ignored in the draft Environmental Impact Statement. The US Army Corps of Engineers and FERC should reject Denver Water's application for permits until this is addressed. It is inexcusable that up to 30,000 trees could be destroyed, tons of carbon put into the atmosphere from destruction of this carbon sink and use of many diesel engines on site, and diesel trucks, and the only concern in the draft EIS is air quality. Loss of trees is a major, permanent impact that is not addressed.</i></p> <p>Response #1638-7: Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p> <p>Greenhouse gas emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Section 5.7.</p> <p>Comment #1638-13 (ID 1664): <i>Projecting a 34,000 AF/yr shortfall by 2030 is misleading. The real shortfall is 18,000 AF/yr since Denver Water accepts that customers will conserve 16,000 a year by 2030. In fact, the projected shortfall of 18,000 AF/yr is also misleading since customers can conserve much more than 16,000 AF/yr. FERC and the Corps, and all the agencies hired to evaluate Denver Waters proposal for expansion of Gross reservoir fail to question the basic assumption upon which the proposed expansion rests - water shortfall. This assumption is not questioned, and neither are the data used to generate the "shortfall." The Corps should require that the data be updated in light of the current economic situation and current growth rate.</i></p> <p>Response #1638-13: The 16,000 AF/yr represents Denver Water's planned conservation by 2032. The conservation plan was independently evaluated and considered to be aggressive. By 2050, Denver Water is planning a reduction in water use of 68,000 AF/yr from conservation. The water demand estimates and projections provided in the Denver Water IRP were evaluated independently and in considerable detail by the Corps. The demand forecasting model, the specifications of that model, and the independent variables which drove that model were independently examined and validated.</p> <p>Recent DRCOG projections (2007) show an average annual growth of 1.63% for the Denver area between 2000 and 2020. The 2008 State Demographer projections cited by the EPA result in average annual growth of 1.76% for the Denver Primary Metropolitan Statistical Area between 2000 and 2020. Both the more recent DRCOG projections and the 2008 State Demographer projections are not inconsistent with the DRCOG projections originally used in Denver Water's model.</p>


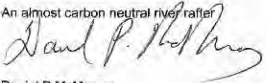
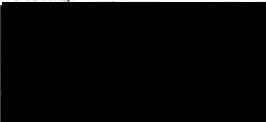
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Additional data was collected and analyzed for socioeconomics in FEIS Section 5.19. The socioeconomic analysis included an update of demand projections through reviewing the data used in Denver Water's current model and reviewing current population projection data from DRCOG, Colorado DOLA or other agencies, as available, to examine any differences in projected population numbers or rates between the older data and the current data.</p> <p>Comment #1638-1 (ID 1663): <i>Personal issues, additional reasons to stop the project Don't say home values won't go down - they will. Show me the data. In our area we don't have lawns, and cannot use water outside the house, or even collect it off the roof. In my opinion, Kentucky blue grass belongs in Kentucky. My kids drive to school up and down the canyon, with so much slow, road hogging traffic I will worry about them even more. I use the Canyon public transport van and I am on a schedule; delays will be more than inconvenient. I love to fish on the rivers and streams of the western slope. The increased diversion of water from these beautiful areas, to sprinkle on the lawns of Denver Waters customers is really maddening. I know that there is a better way, called conservation. People in Coal Creek Canyon know what conservation is all about, so it seems unfair that our lifestyle is jeopardized for the sake of Denver Water customers. I was so delighted when Gross Reservoir was finally opened to boaters four years ago. We have a kayak and finally had a place to use it nearby. The managers of Gross Reservoir, FERC and the US Forest Service, and Boulder County as well, were smart in designating it a forest area. If Denver Water succeeds in convincing the US Army Corps of Engineers and FERC that it must have a huge reservoir, that will be the end of boating, fishing and picnicking for a long time. No one would go there to hear the earth-crushing sounds of construction.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		Response #1638-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1640 Daniel P. McMurray</p>	<div style="text-align: center;">  </div> <p>Scott Franklin, Moffat EIS Project Director Corps Denver Regulatory Office 9307 S. Wadsworth Blvd Littleton, Co. 80128</p> <p>My name is Daniel P McMurray, living at [REDACTED]. I am 4 miles north of HSS, and the Colorado river. My wife and I built a 750 sq ft cabin [you don't really need a 4000 sq ft log house to be comfortable...] off the grid, and have been there for 30 years. We developed our own water system, have a grey water leach field, and a composting toilet. Our photo-voltaic system is approximately 1 KW, which includes a submersible well pump and a hot tub. is modest ,by most standards. Our 40 acres is a combination of lodgepole pine [mostly dead from beetles], aspen , sagebrush, and natural grasses. The only part of my 'lawn' I water is my vegetable garden. It looks great with wildflowers, dandelions, wild oats, and rye grass. We've always had the habit of not being wastful, conserving and recycling what we can. I turn off the faucet when I brush my teeth, fill a jug with water while my shower water warms up [for the plants and the dog...], and reuse plastic bags [until they get holes]. It's not really that hard to conserve energy, water or even garbage.</p> <p>I think if you like water guzzling Kentucky blue grass, in a semi-arid enviroment, you should buy Astroturf. I think if you want to expand Gross Reservoir, you will loose alot of what you gain to evaporation. Maybe more ,smaller, covered reservoirs might work. If you take 85% of the Fraser river, you will kill it's ecosystem. And like a species extinction, you're messing up the natural order of things, and it will come back to haunt you... Water is precious, it is the life-blood of the whole planet, not just human beings.. You front range people know you can conserve more than enough to meet your needs, it's just inconvenient.</p> <p>Being a realist, I'm sure that no matter what is said, you will take what you want, and the rivers will suffer. Ironically, and sadly, that will not be enough. The worlds population has doubled in the last 40 years, the front range will continue to grow. So in the end, after you've taken all the water you can, you will be forced to conserve. I realize that different plumbing for grey water, composting toilets [I'd like to know what Roman Architect thought it was a good idea to transport poop with fresh water... and that's 'state of the art' now...], and covered reservoirs[you do have some.] are 'radical' solutions. But you will ,eventually, have to do something like that. Because while the population has increased, the rain-snow fall totals have not.</p> <p>So you should start to conserve now. Before the river enviroments are dead, be responsible to our future generations. They should be able to enjoy the rivers like we do, not be left with lifeless, dry valleys.</p> <p>An almost carbon neutral river raffer  12/9/09 Daniel P McMurray </p>	<p>Comment #1640-1 (ID 1680): My name is Daniel P McMurray, living at [REDACTED]. I am 4 miles north of HSS, and the Colorado river. My wife and I built a 750 sq ft cabin [you don't really need a 4000 sq ft log house to be comfortable...] off the grid, and have been there for 30 years. We developed our own water system, have a grey water leach field, and a composting toilet. Our photo-voltaic system is approximately 1 KW, which includes a submersible well pump and a hot tub, is modest ,by most standards. Our 40 acres is a combination of lodgepole pine [mostly dead from beetles], aspen , sagebrush, and natural grasses. The only part of my 'lawn' I water is my vegetable garden. It looks great with wildflowers, dandelions, wild oats, and rye grass. We've always had the habit of not being wastful, conserving and recycling what we can. I turn off the faucet when I brush my teeth, fill a jug with water while my shower water warms up [for the plants and the dog...], and reuse plastic bags [until they get holes]. It's not really that hard to conserve energy, water or even garbage.</p> <p>Response #1640-1: The Corps notes the comment.</p> <p>Comment #1640-2 (ID 1679): I think if you like water guzzling Kentucky blue grass, in a semiarid environment, you should buy Astroturf. I think if you want to expand Gross Reservoir, you will lose alot of what you gain to evaporation. Maybe more ,smaller, covered reservoirs might work. If you take 85% of the Fraser river, you will kill it's ecosystem. And like a species extinction, you're messing up the natural order of things, and it will come back to haunt you ... Water is precious, it is the life-blood of the whole planet, not just human beings.. You front range people know you can conserve more than enough to meet your needs, it's just inconvenient. Being a realist, I'm sure that no matter what is said, you will take what you want, and the rivers</p>


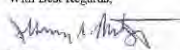
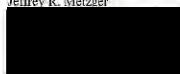
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>will suffer. Ironically, and sadly, that will not be enough. The worlds population has doubled in the last 40 years, the front range will continue to grow. So in the end, after you've taken all the water you can, you will be forced to conserve. I realize that different plumbing for grey water, composting toilets [I'd like to know what Roman Architect thought it was a good idea to transport poop with fresh water ... and that's 'state of the art' now..], and covered reservoirs[you do have some..] are 'radical' solutions. But you will ,eventually, have to do something like that. Because while the population has increased, the rain-snow fall total have not. So you should start to conserve now. Before the river environments are dead, be responsible to our future generations. They should be able to enjoy the rivers like we do, not be left with lifeless, dry valleys.</i></p> <p>Response #1640-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1641 Andrea Marshall</p>		<p>Comment #1641-1 (ID 1681): <i>I am Opposing enlarging Gross Reservoir:</i></p> <p>Response #1641-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1642 Jeffrey R. Metzger</p>	<div style="text-align: center;">  </div> <p>December 4, 2009</p> <p>Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO, 80128</p> <p>Dear Mr. Franklin,</p> <p>The purpose of this letter is to provide you and the Corps with a written response to the Draft EIS for the Moffat FIRMing Project.</p> <p>My primary residence is in Boulder since 1976 and we have had a part time home in Grand Lake since 1996. I have fished the Upper Colorado basin and recreated along South Boulder Creek for over 30 years.</p> <p>I am totally opposed to this project at this time, done this way, and will spent my own time and financial resources to attempt to defeat it. While I recognize that the legal water rights may be there for the taking, it just seems unconscionable that we would consider taking more water from the Upper Colorado basin before conservation efforts are exhausted. For example, we have metered water in our part of Boulder. It sure makes you think twice (\$\$) before you turn on the sprinklers on approved watering days!</p> <p>I'd like to respectfully request you consider a few additions and clarifications to the Draft EIS:</p> <ol style="list-style-type: none"> 1) The timeframe for public comment seems quick given the holidays and the length of the document. Please consider extending the period for public comment. 2) Resulting lower flows in the Fraser River will increase the concentration of nutrients in remaining Fraser water. This will only add to the existing nutrient load problem suffered in the CBT transfer of water through Shadow Mountain and Grand Lake. Those lakes are already suffering from unusually large weed blooms, algae blooms and severe degradation of water clarity. Please consider adding the impact on Shadow Mountain Reservoir and Grand Lake nutrient loading with subsequent weed, algae and clarity issues to the Draft EIS. 3) It's not clear to me the need for periodic high flushing water flows for the Fraser and Colorado Rivers are fully addressed in the Draft EIS. 4) It does not appear that the combined impact of the Windy Gap and Moffat FIRMing projects has been considered. 5) Any enhancements, such as guaranteed flow to South Boulder Creek, should be clear and enforceable. <p>The Upper Colorado River and its basin are special and unique in many ways. There is no doubt the Front Range needs water and may have a right to it. However, we can not risk further degradation of the Fraser River, Colorado River, Shadow Mountain Reservoir and Grand Lake.</p> <p>With Best Regards,</p>  <p>Jeffrey R. Metzger</p> 	<p>Comment #1642-5 (ID 1689): <i>The purpose of this letter is to provide you and the Corps with a written response to the Draft EIS for the Moffat FIRMing Project. My primary residence is in Boulder since 1976 and we have had a part time home in Grand Lake since 1996. I have fished the Upper Colorado basin and recreated along South Boulder Creek for over 30 years.</i></p> <p>Response #1642-5: The Corps notes the comment.</p> <p>Comment #1642-4 (ID 1688): <i>I am totally opposed to this project at this time, done this way, and will spent my own time and financial resources to attempt to defeat it. While I recognize that the legal water rights may be there for the taking, it just seems unconscionable that we would consider taking more water from the Upper Colorado basin before conservation efforts are exhausted. For example, we have metered water in our part of Boulder. It sure makes you think twice (\$\$) before you turn on the sprinklers on approved watering days!</i></p> <p>Response #1642-4: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1642-3 (ID 1687): <i>I'd like to respectfully request you consider a few additions and clarifications to the Draft EIS: The timeframe for public comment seems quick given the holidays and the length of the document. Please consider extending the period for public comment.</i></p> <p>Response #1642-3: The following is a summary of the initial public comment period time frame and subsequent extensions. A Notice of Availability of a DEIS and Public Notice announcing the receipt and evaluation of a Clean Water Act Section</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>404 Permit application from Denver Water for the Moffat Project was issued on October 30, 2009, which included an initial 90-day comment period (October 30, 2009 to January 27, 2010). A second Notice of Availability was issued on December 18, 2009. During the comment period, the Corps received numerous requests to again extend the comment period on the DEIS and permit application. Based on the public's need to review additional documents referenced in the DEIS, to allow ample opportunity for the public to provide substantive comments, and to facilitate a timely and efficient review process, Omaha District Commander Colonel Robert J. Ruch determined that an additional 16-day extension was warranted and reasonable. Thus, the comment period was extended to March 17, 2010, for a combined public review period of 138 days.</p> <p>Comment #1642-2 (ID 1686): <i>Resulting lower flows in the Fraser River will increase the concentration of nutrients in remaining Fraser water. This will only add to the existing nutrient load problem suffered in the CBT transfer of water through Shadow Mountain and Grand Lake. Those lakes are already suffering from unusually large weed blooms, algae blooms and severe degradation of water clarity. Please consider adding the impact on Shadow Mountain Reservoir and Grand Lake nutrient loading with subsequent weed, algae and clarity issues to the Draft EIS.</i></p> <p>Response #1642-2: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1642-1 (ID 1685): <i>It's not clear to me the need for periodic high flushing water flows for the Fraser and Colorado Rivers are fully addressed in the Draft EIS.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1642-1:</p> <p>High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The</p>


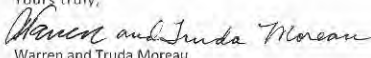
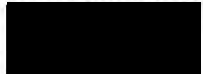
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1642-7 (ID 1684): <i>It does not appear that the combined impact of the Windy Gap and Moffat Firing projects has been considered.</i></p> <p>Response #1642-7: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1642-6 (ID 1683): <i>Any enhancements, such as guaranteed flow to South Boulder Creek, should be clear and enforceable.</i></p> <p>Response #1642-6: Denver Water and the cities of Boulder and Lafayette have entered into an agreement which would provide minimum stream flows for South Boulder Creek. The terms of this agreement would be enforceable between the parties and any conditions set forth by the Corps in a Section 404 Permit, if one is issued, to enlarge Gross Reservoir.</p> <p>Comment #1642-8 (ID 1682): <i>The Upper Colorado River and its basin are special and unique in many ways. There is no doubt the Front Range needs water and may have a right to it. However, we can not risk further degradation of the Fraser River, Colorado River, Shadow Mountain Reservoir and Grand Lake.</i></p> <p>Response #1642-8: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
Comment #1643 Warren and Truda Moreau	<div>January 27, 2010</div> <div>Warren and Truda Moreau</div> <div></div> <div>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</div> <div>Dear Mr. Franklin:</div> <div>My husband and I split our time between the Fraser Valley and Wheat Ridge. As native Denverites we have visited and lived in the Fraser Valley for over 50 years. We have seen a lot of changes.</div> <div>Thank you in advance for considering our concerns. Denver's City Fathers had the foresight years ago to acquire water rights to provide for public need. In those days, environmental impacts were never considered. We thought we could just take water from where it was abundant and divert it to where it was needed. We now know that it isn't easy to mess with Mother Nature. It has become obvious that diversions from the upper Fraser River Valley have a significant impact on everything downstream -- water temperature, water quality, wildlife habitat—from Winter Park to Kremmling and beyond.</div> <div>As parents and grandparents we are concerned about the future of the Fraser Valley and particularly the Fraser River. Please review the science in Grand Counties "Stream Flow Management Plan". The flushing flows and baseline flows that this study details as necessary for the future health of the river need to be implemented.</div> <div>Denver's current leadership needs to have the foresight to implement stringent controls on how they divert the flows and when they divert them. There is not an endless supply. We can't continue to degrade Grand County's waters -- waters belonging to the people of the U. S. --without careful planning and monitoring.</div> <div>To protect future generations the EIS and final permit must provide for adaptive management that requires careful monitoring and a proactive response to maintain the health of the river. This would include funding and a process for independent monitoring of water quality and impacts on aquatic life as well as funding for mitigation in response to needs identified by monitoring. In addition we cannot over emphasize the importance of a mid-course analysis and correction of the permit.</div> <div>The Corps' main responsibility is neither to Grand County nor to Denver Water, but to the environment and to future generations. Please protect the life and health of the Fraser and Colorado Rivers.</div> <div>Yours truly,  Warren and Truda Moreau</div> <div></div>	<div>Comment #1643-1 (ID 1694): My husband and I split our time between the Fraser Valley and Wheat Ridge. As native Denverites we have visited and lived in the Fraser Valley for over 50 years. We have seen a lot of changes. Thank you in advance for considering our concerns. Denver's City Fathers had the foresight years ago to acquire water rights to provide for public need. In those days, environmental impacts were never considered. We thought we could just take water from where it was abundant and divert it to where it was needed. We now know that it isn't easy to mess with Mother Nature. It has become obvious that diversions from the upper Fraser River Valley have a significant impact on everything downstream -- water temperature, water quality, wildlife habitat—from Winter Park to Kremmling and beyond.</div> <div>Response #1643-1: The Corps notes the comment.</div> <div>Comment #1643-2 (ID 1693): As parents and grandparents we are concerned about the future of the Fraser Valley and particularly the Fraser River. Please review the science in Grand Counties "Stream Flow Management Plan". The flushing flows and baseline flows that this study details as necessary for the future health of the river need to be implemented.</div> <div>Response #1643-2: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</div>




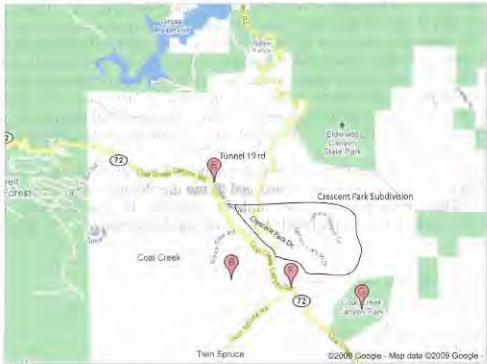
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Evaluation of Flushing Flows Requirements ("Low Flow Protection"), Minimum Instream Flow Rights, Baseline Flows and Bypass Flows, are included in the FEIS.</p> <p>Comment #1643-3 (ID 1692): <i>Denver's current leadership needs to have the foresight to implement stringent controls on how they divert the flows and when they divert them. There is not an endless supply. We can't continue to degrade Grand County's waters - waters belonging to the people of the U. S. - without careful planning and monitoring.</i></p> <p>Response #1643-3: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required, including adaptive management for mitigation.</p> <p>Comment #1643-4 (ID 1691): <i>To protect future generations the EIS and final permit must provide for adaptive management that requires careful monitoring and a proactive response to maintain the health of the river. This would include funding and a process for independent monitoring of water quality and impacts on aquatic life as well as funding for mitigation in response to needs identified by monitoring. In addition we cannot over emphasize the importance of a mid-course analysis and correction of the permit.</i></p>


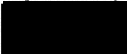
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1643-4: Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>Comment #1643-5 (ID 1690): <i>The Corps' main responsibility is neither to Grand County nor to Denver Water, but to the environment and to future generations. Please protect the life and health of the Fraser and Colorado Rivers.</i></p> <p>Response #1643-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1644 Meghan Morrissey-Grimm and Family</p>	<div style="text-align: center;">  <p>January 20, 2010</p> </div> <p>Scott Franklin Moffat EIS Project Mgr. US Army Corp of Engineers 9307 South Wadsworth Bld Denver, CO 80128</p> <p>Dear Mr. Franklin,</p> <p>The decision by Denver Water to expand Gross Reservoir has been made without any conscious effort to consider the impact of the proposed plan on the immediate surrounding community – lives of people who actually live in the area. I became aware of the project just last year when on my bike riding along on a neighborhood 20 mph speed limit road. While on my ride I saw a tour bus driving up the road (Crescent Park Drive) and I could not believe it, we do not have buses that size come through our neighborhood. As I road my bike the tour bus driver honked at me to get out of his way. As the bus drove by I saw a sign with Denver Water on it. It was likely a bus taking decision-making people to the reservoir. This made me think about the impact the expansion will have on our community especially the neighborhood roads. If a tour bus driver honked at me, what will dump truck drivers do to me (my kids) and my neighbors who walk, run, horse ride, and bike along our own neighborhood roads?</p> <div style="text-align: center;">  </div> <p>Fig. 1: Location map of Gross Dam Rd, Spruce Canyon Dr, and Crescent Park Dr; roads well-used by the people who live in the Crescent Park Subdivision.</p>	<p>Comment #1644-2 (ID 1696): <i>The decision by Denver Water to expand Gross Reservoir has been made without any conscious effort to consider the impact of the proposed plan on the immediate surrounding community - lives of people who actually live in the area. I became aware of the project just last year when on my bike riding along on a neighborhood 20 mph speed limit road. While on my ride I saw a tour bus driving up the road (Crescent Park Drive) and I could not believe it, we do not have buses that size come through our neighborhood. As I road my bike the tour bus driver honked at me to get out of his way. As the bus drove by I saw a sign with Denver Water on it. It was likely a bus taking decision-making people to the reservoir. This made me think about the impact the expansion will have on our community especially the neighborhood roads. If a tour bus driver honked at me, what will dump truck drivers do to me (my kids) and my neighbors who walk, run, horse ride, and bike along our own neighborhood roads?</i></p> <p><i>[SEE SOURCE FILE FOR FIGURE 1, LOCATION MAP OF GROSS DAM RD, SPRUCE CANYON DR, AND CRESCENT PARK DR; ROADS WELL-USED BY THE PEOPLE WHO LIVE IN THE CRESCENT PARK SUBDIVISION.] Figure 1 shows the layout of our Crescent Park subdivision located in Coal Creek Canyon. Yes, we are a subdivision of a few hundred people who work, play and live I the area. We live there to enjoy a quiet, low stress environment. There a many families, young and old, in the subdivision who utilize these roads daily for activities ranging from senior citizens walking on Gross Dam Rd (only flat, low traffic volume road in the canyon), horse back riders who use a trail that runs along Gross Dam Rd to Tunnel 19 Rd, runners who run from Spruce Canyon Dr to Whispering Pines church (Gross Dam Rd), dog walkers, to kids and adults riding bikes from Spruce Canyon to Gross Dam Rd to get to the other parts of our canyon without riding on Hwy 72. My neighbor, who has Parkinson's disease, still drives and utilizes Gross Dam Rd to visit his local friends. There are many homes along Gross Dam Rd</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>Figure 1 shows the layout of our Crescent Park subdivision located in Coal Creek Canyon. Yes, we are a subdivision of a few hundred people who work, play and live in the area. We live there to enjoy a quiet, low stress environment. There are many families, young and old, in the subdivision who utilize these roads daily for activities ranging from senior citizens walking on Gross Dam Rd (only flat, low traffic volume road in the canyon), horse back riders who use a trail that runs along Gross Dam Rd to Tunnel 19 Rd, runners who run from Spruce Canyon Dr to Whispering Pines church (Gross Dam Rd), dog walkers, to kids and adults riding bikes from Spruce Canyon to Gross Dam Rd to get to the other parts of our canyon without riding on Hwy 72. My neighbor, who has Parkinson's disease, still drives and utilizes Gross Dam Rd to visit his local friends. There are many homes along Gross Dam Rd including a number of ranches and farmyards located very close to the road. These people and their pets/animals have been there for years. What do think the impact of 70 plus dump trucks daily or in other words, one dump truck every 5 minutes will have on their lives? You and other decision makers know darn well that this is extremely heavy traffic on a dirt road that has never experienced that kind of traffic before. The trucks will be creating noise pollution, dust pollution, and road hazards (not one of those trucks will be driving < 25 mph as they should be by law, they will be on a daily time constraint and if behind schedule, they will speed). The environmental and health impact from this amount of traffic on these small mountain community roads will be extreme. I hope you and other decision makers do take the time to drive along these roads and truly consider the impact this project will have on these people – put yourself in their shoes.</p> <p>Hwy 72 will be impacted as well with 70 plus dump trucks per day. If an accident (roll over truck) occurs on this road, it cuts off access to the homes and the community school. The alternative routes are 1-2 hr drive times. This road is not designed to take the heavy traffic. We have young and old drivers on this road, 70+ dump trucks going up and down this road will have a major impact on traffic and heavily increase the risk to drivers and the number of accidents will go way up - most accidents of Hwy 72 are bad - there is a creek that runs along the highway - if a car or truck goes off the road, it ends up in the creek after it has rolled over. This is not very good for the health of people and the canyon environment.</p> <p>In this day and age of modern transportation and conservation, there are better ways to achieve the goals of Denver Water and to use the abilities of the Army Corp of Engineers. This project may have been in development for 10 years, however, during that time the environmental and health impact on local communities has never been addressed.</p> <p>Thank you for your time and consideration,</p> <p> Meghan Morrissey-Griffin and family </p>	<p><i>including a number of ranches and farmyards located very close to the road. These people and their pets/animals have been there for years. What do think the impact of 70 plus dump trucks daily or in other words, one dump truck every 5 minutes will have on their lives? You and other decision makers know darn well that this is extremely heavy traffic on a dirt road that has never experienced that kind of traffic before. The trucks will be creating noise pollution, dust pollution, and road hazards (not one of those trucks will be driving < 25 mph as they should be by law. they will be on a daily time constraint and if behind schedule, they will speed). The environmental and health impact from this amount of traffic on these small mountain community roads will be extreme. I hope you and other decision makers do take the time to drive along these roads and truly consider the impact this project will have on these people - put yourself in their shoes. Hwy 72 will be impacted as well with 70 plus dump trucks per day. If an accident (roll over truck) occurs on this road, it cuts off access to the homes and the community school. The alternative routes are 1-2 hr drive times. This road is not designed to take the heavy traffic. We have young and old drivers on this road, 70+ dump trucks going up and down this road will have a major impact on traffic and heavily increase the risk to drivers and the number of accidents will go way up - most accidents of Hwy 72 are bad - there is a creek that runs along the highway - if a car or truck goes off the road, it ends up in the creek after it has rolled over. This is not very good for the health of people and the canyon environment.</i></p> <p>Response #1644-2: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77S, SHs 72, 93, and 128, US 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary</p>

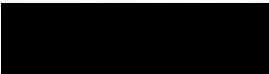
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During peak construction period, about 35 trucks could deliver material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p> <p>Comment #1644-1 (ID 1695): <i>In this day and age of modern transportation and conservation, there are better ways to achieve the goals of Denver Water and to use the abilities of the Army Corp of Engineers. This project may have been in development for 10 years, however, during that time the environmental and health impact on local communities has never been addressed.</i></p> <p>Response #1644-1: The Corps applied rigorous and scientifically acceptable methodologies for each resource analyzed for the Moffat Project in compliance with the Clean Water Act Section 404 guidelines and NEPA. The direct, indirect, and cumulative effects of the Proposed Action were evaluated for each resource in DEIS Chapter 4 and FEIS Chapter 5. Additionally, impact thresholds (no impact, negligible, minor, moderate, major) were applied to each resource to allow for comparison of impacts between alternatives. Impacts to communities on the East Slope and West Slope were evaluated in DEIS Section 4.17.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1646 Todd Nelson</p>	<div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> </div> <div> <p>Dear Sir:</p> </div> <div> <p>In 2007, the U. S. Army Corps of Engineers (Corps) participated in the 10th International River Symposium and International Environmental Flows Conference in Brisbane, Australia. That conference produced summary findings and a global action agenda to address the urgent need to protect rivers globally. The concept of "environmental flows" is key to that agenda. Environmental flows "describe the quantity, timing, and quality of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems."</p> </div> <div> <p>The Moffat Firming Project is a prime opportunity for the Corps needs to apply the principles of the Brisbane Action Agenda. For the sake of the Fraser River, please ACT on these principles!</p> </div> <div> <p>Estimate environmental flow needs immediately. Scientifically credible methodologies quantify the variable - not just minimum - flows needed for each water body by explicitly linking environmental flows to specific ecological functions and social values. Recent advances enable rapid, region-wide, scientifically credible environmental flow assessments.</p> </div> <div> <p>Integrate environmental flow management into every aspect of land and water management. Environmental flow assessment and management should be a of Integrated Water Resource Management (IWRM); environmental impact assessment (EIA); strategic environmental assessment (SEA); infrastructure and industrial development and certification; and land-use, water-use, and energy-production strategies.</p> </div> <div> <p>Establish institutional frameworks. Consistent integration of environmental flows into land and water management requires laws, regulations, policies and programs that: (1) recognize environmental flows as integral to sustainable water management, (2) establish precautionary limits on allowable depletions and alterations of natural flow, (3) treat ground water and surface water as a single hydrologic resource, and (4) maintain environmental flows across</p> </div>	<p>Comment #1646-1 (ID 1699): In 2007, the U. S. Army Corps of Engineers (Corps) participated in the 10th International River Symposium and International Environmental Flows Conference in Brisbane, Australia. That conference produced summary findings and a global action agenda to address the urgent need to protect rivers globally. The concept of "environmental flows" is key to that agenda. Environmental flows "describe the quantity, timing, and quality of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems. " The Moffat Firming Project is a prime opportunity for the Corps needs to apply the principles of the Brisbane Action Agenda. For the sake of the Fraser River, please ACT on these principles! Estimate environmental flow needs immediately. Scientifically credible methodologies quantify the variable - not just minimum - flows needed for each water body by explicitly linking environmental flows to specific ecological functions and social values. Recent advances enable rapid, region-wide, scientifically credible environmental flow assessments. Integrate environmental flow management into every aspect of land and water management.</p> <p>Environmental flow assessment and management should be a of Integrated Water Resource Management (IWRM); environmental impact assessment (EIA); strategic environmental assessment (SEA); infrastructure and industrial development and certification; and land-use, water-use, and energy-production strategies. Establish institutional frameworks. Consistent integration of environmental flows into land and water management requires laws, regulations, policies and programs that: (1) recognize environmental flows as integral to sustainable water management, (2) establish precautionary limits on allowable depletions and alterations of natural flow, (3) treat ground water and surface water as a single hydrologic resource, and (4) maintain environmental flows across Implement and</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>political boundaries.</p> <p><u>Implement and enforce environmental flow standards.</u> Expressly limit the depletion and alteration of natural water flows according to physical and legal availability, and accounting for environmental flow needs. Where flows are already highly altered, utilize management strategies, including water trading, conservation, floodplain restoration, and dam re-operation, to restore environmental flows to appropriate levels.</p> <p>Your review of the Moffat Fanning Project is critical to the future of the Fraser and Colorado Rivers, their tributaries and the residents of Grand County. Please require Denver Water to address environmental flows and adaptive management in their EIS.</p> <p>Sincerely, <i>Todd Nelson</i> Grand CO. 2-10-10 </p> <p>CC: U. S. Environmental Protection Agency Colorado Division of Wildlife Sen. Mark Udall Rep. Jared Polis</p>	<p><i>enforce environmental flow standards. Expressly limit the depletion and alteration of natural water flows according to physical and legal availability, and accounting for environmental flow needs. Where flows are already highly altered, utilize management strategies, including water trading, conservation, floodplain restoration, and dam re-operation, to restore environmental flows to appropriate levels.</i></p> <p>Response #1646-1: The Corps has complied and will comply with all Federal regulations for the preparation of the EIS and the Section 404 Permit, including appropriate mitigation and adaptive management requirements. Refer to Appendix M.</p> <p>Comment #1646-2 (ID 1698): <i>Your review of the Moffat Fanning Project is critical to the future of the Fraser and Colorado Rivers, their tributaries and the residents of Grand County. Please require Denver Water to address environmental flows and adaptive management in their EIS.</i></p> <p>Response #1646-2: The Corps has complied and will comply with all Federal regulations for the preparation of the described EIS and the Section 404 Permit, including an appropriate review of compensatory mitigation and adaptive management.</p>



Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1650 Gary T. Perkins</p>	<div>Dear Scott Franklin;</div> <div>12 Feb 2010</div> <div> </div> <p>I am writing to you on behalf of Grand County, Colorado and the Fraser River. As you are aware, Denver Water pulls over 60% of the Fraser River to the Front Range. The Moffat Firing Project intends to increase that amount to 80 %. You are in a unique position to put a stop to this nonsense.</p> <p>I travel to Denver from my home in Granby, Colorado about twice per month for work. In the summer months, without fail, I pass by countless streets where Denver is watering streets, curbs, sidewalks, medians, and fences. It is difficult to understand why this magnitude of waste is permitted in the desert southwest. I was raised on farms and ranches in New Mexico. I know the cost to drill water wells and the dire need for water for people and livestock. I have visited many cities in the southwest who understand the precious value of water. Cities like Phoenix have adorned their city with desert landscapes that are not only beautiful but take full advantage of their natural rainfall. Phoenix has made such progress in their cityscape and water usage because they didn't have a choice. Denver persists with such waste because they can. No one is there to make them conserve. All the water they need is waiting for the taking in the high mountain streams.</p> <p>What incentive does Denver Water have to conserve their use of water? I ask you to act on this simple question in your upcoming deliberations. Let's ask Denver Water to be responsible citizens for a change. Let's ask them to recognize that they live in an arid climate at 5000 feet elevation. Let's reward the water board for their acts of conservation rather than legalistic high wire acts to capture and waste even more water.</p> <div>Thank-you;</div> <div>Gary T. Perkins</div> <div> </div> <div> </div>	<p>Comment #1650-1 (ID 1717): <i>I am writing to you on behalf of Grand County, Colorado and the Fraser River. AS you are aware, Denver water pulls over 60% of the Fraser River to the Front Range. The Moffat Firing Project intends to increase that amount to 80 %. You are in a unique position to put a stop to this nonsense.</i></p> <p>Response #1650-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1650-2 (ID 1716): <i>I travel to Denver from my home in Granby, Colorado about twice per month for work. In the summer months, without fail, I pass by countless streets where Denver is watering streets, curbs, sidewalks, medians, and fences. It is difficult to understand why this magnitude of waste is permitted in the desert southwest. I was raised on farms and ranches in New Mexico. I know the cost to drill water wells and the dire need for water for people and livestock. I have visited many cities in the southwest who understand the precious value of water. Cities like Phoenix have adorned their city with desert landscapes that are not only beautiful but take full advantage of their natural rainfall. Phoenix has made such progress in their cityscape and water usage because they didn't have a choice. Denver persists with such waste because they can. No one is there to make them conserve. All the water they need is waiting for the taking in the high mountain streams. What incentive does Denver Water have to conserve their use of water? I ask you to act on this simple question in your upcoming deliberations. Let's ask Denver Water to be responsible citizens for a change. Let's ask them to recognize that they live in an arid climate at 5000 feet elevation. Let's reward the water board for their acts of conservation rather than legalistic high wire acts to capture and waste even more water.</i></p> <p>Response #1650-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1651 Robert K. Peterson</p>	<div style="text-align: center;">   <p>February 2, 2010</p> </div> <p>To: Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Re: The Moffat Firming Project</p> <p>Sirs:</p> <p>I was raised in the Fraser River Valley before WW II. In those days, the Fraser River and its tributaries ran cold and deep. They were teeming with trout. Animals, both wild and domestic, depended on the habitat that these streams created. While revisiting the Fraser Valley in recent years I have repeatedly noticed the declining vigor of the river as well as the continuing deterioration of the surrounding environment. One of the principal causes for this deterioration is the increasing amount of water taken from the river by the Denver Water Board. Once this water passes through the Continental Divide, none of it ever returns to the west slope. In this respect, the loss is far greater than it was when equivalent rights were used locally. In addition, the water is removed from the river and its tributaries at altitudes well above the valley floor thus aggravating the accumulation of sediment and algae along the river in the valley below.</p> <p>Now, the City of Denver, via the firming project, wants to take more water. Nominally, their request is to build more storage to permit the taking of water for which Denver claims to already own the rights. Even if that claim is valid, the result will be more water taken from the river and stored on the east slope. Granting this request can only hasten the deterioration that I have mentioned. I therefore believe that everyone should consider the firming request in a far larger context. We must ask what purpose the transfer of additional Fraser River water will serve. Will it solve the problem of the ever-growing demand for water in the metropolitan region or is it simply a temporary expedient? Will it be enough to satisfy the needs of Denver? I think not. The solution to Denver's problem can only lie in changing the way that that vast complex uses the water it has. Such a change is inevitable whether its current request is granted or not. There will never be enough water to grow blue grass lawns throughout an ever-increasing residential area. The sooner this fact is recognized, the sooner a viable solution to the city's problem as well as the Fraser Valley's problem can be achieved.</p> <p>Regardless of the fate of the Firming Project, the way in which water is taken from the Fraser Valley must be controlled. The river must be allowed to flood for a period of time</p>	<p>Comment #1651-2 (ID 1721): <i>I was raised in the Fraser River Valley before WW II. In those days, the Fraser River and its tributaries ran cold and deep. They were teeming with trout. Animals, both wild and domestic, depended on the habitat that these streams created. While revisiting the Fraser Valley in recent years I have repeatedly noticed the declining vigor of the river as well as the continuing deterioration of the surrounding environment. One of the principal causes for this deterioration is the increasing amount of water taken from the river by the Denver Water Board. Once this water passes through the Continental Divide, none of it ever returns to the west slope. In this respect, the loss is far greater than it was when equivalent rights were used locally. In addition, the water is removed from the river and its tributaries at altitudes well above the valley floor thus aggravating the accumulation of sediment and algae along the river in the valley below.</i></p> <p>Response #1651-2: Flow related changes that have occurred in the Fraser River Basin since 1935 are due in part to Denver Water's existing Moffat Collection System diversions as well as other in-basin water uses, however, these impacts are attributable to past and present operations, not the proposed Moffat Project. Current problems caused by low flows during the late summer and in dry years are partially due to operations of the existing Moffat Collection System. The proposed Moffat Project would not cause additional flow reductions during those times since there would be no additional diversions due to the Moffat Project in the late summer or in dry years. There would be no additional diversions in dry years because Denver Water would already have diverted the maximum amount physically and legally available under their existing water rights without additional storage on-line. Table H-3.1 in DEIS Appendix H shows additional diversions through the Moffat Tunnel would occur primarily during runoff months in May, June and July. During the late summer in August and September, there</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>each spring to insure the removal of sediment and algae. In addition, sufficient flow must be maintained during the summer season to insure the cool temperatures that Colorado's native trout species require. Failure to follow procedures that control these conditions will eventually destroy all life in the river.</p> <p>The water dilemma that faces the central Colorado region is not just local. It is a problem that spans the entire Rocky Mountain West. Besides Denver, other big cities such as Phoenix, Tucson, Salt Lake City, Albuquerque and Las Vegas are plagued with similar water problems. Las Vegas has had the most trouble and has, therefore, done the most to conserve its resources by changing the way water is used. Now is the time for other cities to take similar steps. Those people who will make the final decision on the firming request can put Denver on a path to a more permanent solution to its problem. They can do so without further damage to the Fraser River Valley. Failure on their part to so decide will only guarantee a postponement of the city's day of reckoning. The longer the postponement, the more drastic that reckoning will be.</p> <p>My personal interest is not only in the well-being of the Fraser Valley I love, but also in the future of my present home in Phoenix. We, in the desert, must, sooner or later, give up our Bermuda grass lawns and our water-guzzling shrubs. I hope Denver will set us an example of how it can be done. Start the process now by refusing to take more water out of the Fraser River and by controlling the way the present water withdrawals are made.</p> <p>Thank you for your consideration.</p> <div style="text-align: center;">  Robert K. Peterson  </div> <p>cc: Environmental Protection Agency Larry Svoboda, Director, NEPA Compliance and Review Program U. S. EPA, Region V111 1595 Wynkoop Street Denver, CO 80134</p>	<p>would be little to no additional water diverted so current problems caused by low flow conditions would not be exacerbated by the proposed Moffat Project. The environmental effects of existing diversions in combination with additional diversions due to the Moffat Project were evaluated and the associated environmental effects were generally determined to be minimal to moderate.</p> <p>Comment #1651-1 (ID 1720): <i>Now, the City of Denver, via the firming project, wants to take more water. Nominally, their request is to build more storage to permit the taking of water for which Denver claims to already own the rights. Even if that claim is valid, the result will be more water taken from the river and stored on the east slope. Granting this request can only hasten the deterioration that I have mentioned. I therefore believe that everyone should consider the firming request in a far larger context. We must ask what purpose the transfer of additional Fraser River water will serve. Will it solve the problem of the ever-growing demand for water in the metropolitan region or is it simply a temporary expedient? Will it be enough to satisfy the needs of Denver? I think not. The solution to Denver's problem can only lie in changing the way that that vast complex uses the water it has. Such a change is inevitable whether its current request is granted or not. There will never be enough water to grow blue grass lawns throughout an ever-increasing residential area. The sooner this fact is recognized the sooner a viable solution to the city's problem as well as the Fraser Valley's problem can be achieved.</i></p> <p>Response #1651-1: Denver Water's projected demand shortfall is not the only issue driving the need for the Moffat Project. Many underlying, interrelated needs can contribute to the discrete purpose of the Project. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and could seriously jeopardize Denver Water's ability to meet its present-day water needs. All of these problems are addressed with one solution: the addition of 18,000 AF/yr of new firm yield available to the North System.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules, including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering can occur, and prohibiting watering the street, watering in rain or strong wind, and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (which may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>Comment #1651-4 (ID 1719): <i>Regardless of the fate of the Firming Project, the way in which water is taken from the Fraser Valley must be controlled. The river must be allowed to flood for a period of time each spring to insure the removal of sediment and algae. In addition, sufficient flow must be maintained during the summer season to insure the cool temperatures that Colorado's native trout species require. Failure to follow procedures that control these conditions will eventually destroy all life in the river.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1651-4: A more detailed evaluation of temperature analysis on the Fraser River and the Colorado River (between the Fraser River and the Blue River) was performed for the FEIS (see Sections 4.6.2 and 5.2).</p> <p>Comment #1651-3 (ID 1718): <i>The water dilemma that faces the central Colorado region is not just local. It is a problem that spans the entire Rocky Mountain West. Besides Denver, other big cities such as Phoenix, Tucson, Salt Lake City, Albuquerque and Las Vegas are plagued with similar water problems. Las Vegas has had the most trouble and has, therefore, done the most to conserve its resources by changing the way water is used. Now is the time for other cities to take similar steps. Those people who will make the final decision on the firming request can put Denver on a path to a more permanent solution to its problem. They can do so without further damage to the Fraser River Valley. Failure on their part to so decide will only guarantee a postponement of the city's day of reckoning. The longer the postponement, the more drastic that reckoning will be. My personal interest is not only in the well-being of the Fraser Valley I love, but also in the future of my present home in Phoenix. We, in the desert, must, sooner or later, give up our Bermuda grass lawns and our water-guzzling shrubs. I hope Denver will set us an example of how it can be done. Start the process now by refusing to take more water out of the Fraser River and by controlling the way the present water withdrawals are made.</i></p> <p>Response #1651-3: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1652 Frank Pilkington</p>	<div style="text-align: center;">  </div> <p>Mr. Scott Franklin Moffat EIS Project Manager Army Corps of Engineers 9307 So. Wadsworth Blvd. Littleton, Co. 80128</p> <p>February 14, 2010</p> <p>I am a resident of Denver who owns a vacation home in Grand County Colorado. The Denver Water Department has designed a conservation plan for all of us water users here on the Front Range. I like receiving rebates for toilets, washers, and sprinklers that save water. This voluntary program has been somewhat successful and now should be mandatory so that our Front Range needs do not disrupt the existence of residents in Grand County. Denver Water could be more aggressive about conservation for its own residents since the Front Range is where increased water needs exist. This is not to say that Grand County water needs are not also increasing. Grand County has experienced growth too, and they have their own local needs to maintain if not increase their water supply.</p> <p>At present, Denver Water receives 60% of the Fraser River water. This amount is already high. Since childhood, my family had visited Grand County on camping vacations along the Fraser River and we used to catch fish. No more. The water flow is low compared to what it used to be. The fish are smaller, and less in numbers. Now I see that you are trying to increase the amount of water taken from the Fraser River to an even larger percentage. This is wrong. Increased diversions of water from the Fraser River in Grand County could put the entire upper Colorado ecosystem at risk. This small river needs a flushing system in the spring to maintain its proper ecological balance. Changing this flow will have unintended consequences for this high altitude ecosystem that is already fragile.</p> <p>There are a lot of uses for water and it is hard to prioritize which ones are the most important to protect. Regardless of the variety of uses, maintaining our wetlands and ecosystem is a priority. Once wetlands are gone, or the native ecosystem has been twcaked, they will not return. When the Army Corps of Engineers makes critical decisions about our environment, you must take care to preserve what nature has provided. This increased demand will change Grand County forever and the present Moffat Firing Project should be eliminated. Taking more water from the Fraser River is wrong.</p> <p>Frank Pilkington [Redacted] [Redacted]</p> <p><i>Frank Pilkington</i></p>	<p>Comment #1652-1 (ID 1723): <i>At present, Denver Water receives 60% of the Fraser River water. This amount is already high. Since childhood, my family had visited Grand County on camping vacations along the Fraser River and we used to catch fish. No more. The water flow is low compared to what it used to be. The fish are smaller, and less in numbers. Now I see that you are trying to increase the amount of water taken from the Fraser River to an even larger percentage. This is wrong. Increased diversions of water from the Fraser River in Grand County could put the entire upper Colorado ecosystem at risk. This small river needs a flushing system in the spring to maintain its proper ecological balance. Changing this flow will have unintended consequences for this high altitude ecosystem that is already fragile.</i></p> <p>Response #1652-1: The Fraser River continues to support fish along its length from upstream of the diversion to its mouth, as documented in the DEIS and FEIS. Fish counts are similar to those of the past, and fish biomass in some sections is several times the average for similar streams, including some large fish. The flushing capabilities of high flows in the Fraser River were evaluated in the DEIS and FEIS in Sections 4.6.3 and 5.3 (Geomorphology) and were taken into account in the evaluation of aquatic resources.</p> <p>Comment #1652-3 (ID 1724): <i>I am a resident of Denver who owns a vacation home in Grand County Colorado. The Denver Water Department has designed a conservation plan for all of us water users here on the Front Range. I like receiving rebates for toilets, washers, and sprinklers that save water. This voluntary program has been somewhat successful and now should be mandatory so that our Front Range needs do not disrupt the existence of residents in Grand County. Denver Water could be more aggressive about conservation for its own residents since the Front Range</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>is where increased water needs exist. This is not to say that Grand County water needs are not also increasing. Grand County has experienced growth too, and they have their own local needs to maintain if not increase their water supply.</i></p> <p>Response #1652-3: Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1652-2 (ID 1722): <i>There are a lot of uses for water and it is hard to prioritize which ones are the most important to protect. Regardless of the variety of uses, maintaining our wetlands and ecosystem is a priority. Once wetlands are gone, or the native ecosystem has been tweaked, they will not return. When the Army Corps of Engineers makes critical decisions about our environment, you must take care to preserve what nature has provided. This increased demand will change Grand County forever and the present Moffat Firing Project should be eliminated. Taking more water from the Fraser River is wrong.</i></p> <p>Response #1652-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1653 Jeanne Raffa</p>	<p>Gmail - Compose Mail - [REDACTED] 2/10/10 2:19 PM</p> <p>Tues., Feb 9, 2010 Jeanne Raffa [REDACTED]</p> <p>Dear Sir,</p> <p>I lived for many years in Grand County, but now live in the Denver Metro Area. I am gravely concerned regarding the Denver Water Districts management of our water resources. Water is vital to us all, but is a limited resource which needs to be utilized wisely. Most of us living on the front range, as well as people from other states and other countries, love to enjoy the wonder and beauty of the Colorado Mountains. However we seem to be intent upon destroying this amazing gift from nature.</p> <p>Denver Water District shouldn't be allowed to operate as if our beautiful clear mountain lakes and streams are an endless water supply. I understand that there are new projects being considered to divert even more water from the Upper Colorado River Basin to the Front Range. This includes the Windy Gap Firing Project, and the Moffat firing Project. My understanding is that cumulatively with these and other projects, 85% of the Upper Colorado River Basin water would be diverted elsewhere.</p> <p>Decreased river volumes have caused increased water temperatures causing increased algae and weed growth. Additionally agricultural runoff from farming and cattle raising add concentrated nutrients to the water. And the dumping of sand by the Colorado Department of Transportation (9000 tons on Highway 40 on the west side of Berthoud Pass alone) also impacts the water quality. The rivers need periodical flushing which normally happens with spring runoff, but reduced flows impact this.</p> <p>We are adversely affecting these beautiful mountain, streams, and lakes that we love.</p> <p>Consideration of the Grand County Stream Management Plan should be taken. Also the cumulative effects of both the Windy Gap Firing Project and The Moffat Firing Project which both impact the Upper Colorado River Basin should be combined in the evaluations as a whole.</p> <p>Denver Water must be held to full mitigation standards before additional diversions are allowed. And this needs to be clearly stated.</p> <p>Real water conservation efforts on the Front Range need to be implemented, such as prohibition of the installation of lawns (particularly of Kentucky Bluegrass) in new construction. Consider promoting Southern Nevada Water Authorities tactics of paying customers to remove Kentucky Bluegrass which reduced water usage by 30%.</p> <p>Denver Water is profit driven with extensive diversions already in place. I understand that there are plans to sell water outside of the Denver Water District.</p> <p>We need to preserve our beautiful mountain waters such as the Fraser River which was named the 3rd most endangered River in the US in 2005 by American Rivers. We need to preserve Grand Lake the largest natural lake in Colorado.</p> <p>Denver Water proposes 8 alternatives. I am in favor of the No Action Alternative because it is the least destructive choice.</p> <p>Sincerely, Jeanne Raffa</p> <p style="text-align: center;">  </p> <p style="text-align: right;">Page 1 of 1</p>	<p>Comment #1653-1 (ID 1734): <i>I lived for many years in Grand County, but now live in the Denver Metro Area. I am gravely concerned regarding the Denver Water Districts management of our water resources. Water is vital to us all, but is a limited resource which needs to be utilized wisely. Most of us living on the front range, as well as people from other states and other countries, love to enjoy the wonder and beauty of the Colorado Mountains, However we seem to be intent upon destroying this amazing gift from nature.</i></p> <p>Response #1653-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1653-2 (ID 1733): <i>Denver Water District shouldn't be allowed to operate as if our beautiful clear mountain lakes and streams are an endless water supply. I understand that there are new projects being considered to divert even more water from the Upper Colorado River Basin to the Front Range. This includes the Windy Gap Firing Project, and the Moffat firing Project. My understanding is that cumulatively with these and other projects, 85% of the Upper Colorado River Basin water would be diverted elsewhere.</i></p> <p>Response #1653-2: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: “The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project.” Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1653-3 (ID 1732): <i>Decreased river volumes have caused increased water temperatures causing increased algae and weed growth. Additionally agricultural runoff from farming and cattle raising add concentrated nutrients to the water. And the dumping of sand by the Colorado Department of Transportation (9000 tons on Highway 40 on the west side of Berthoud Pass alone) also impacts the water quality. The rivers need periodical flushing which normally happens with spring runoff, but reduced flows impact this.</i></p> <p>Response #1653-3: A more detailed evaluation of temperature analysis on the Fraser River and the Colorado River (between the Fraser River and the Blue River) was performed for the FEIS (see Sections 4.6.2 and 5.2).</p> <p>An additional sediment sampling and transport modeling site was added on the Fraser River to better understand impacts of traction sand. Sensitivity analyses were added to the assessment to evaluate impacts of additional sediment inputs at all model sites. Historic responses of the Fraser River were also completed using aerial photographs and channel cross-section to evaluate past impacts. Analyses of the existing systems are provided in</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes considering traction sand are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1653-4 (ID 1731): <i>We are adversely affecting these beautiful mountain, streams, and lakes that we love. Consideration of the Grand County Stream Management Plan should be taken.</i></p> <p>Response #1653-4: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Comment #1653-5 (ID 1730): <i>Also the cumulative effects of both the Windy Gap Firing Project and The Moffat Firing Project which both impact the Upper Colorado River Basin should be combined in the evaluations as a whole.</i></p> <p>Response #1653-5: Please see the response to Comment ID 1733.</p> <p>Comment #1653-6 (ID 1729): <i>Denver Water must be held to full mitigation standards before additional diversions are allowed. And this needs to be clearly stated.</i></p> <p>Response #1653-6: Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1653-7 (ID 1728): <i>Real water conservation efforts on the Front Range need to be implemented, such as prohibition of the installation of lawns (particularly of Kentucky Bluegrass) in new construction. Consider promoting Southern Nevada Water Authorities tactics of paying customers to remove Kentucky Bluegrass which reduced water usage by 30%.</i></p> <p>Response #1653-7: Denver Water explored a “Cash for Grass” program. In 2008, Denver Water held several focus groups and found that there was little interest in participating in this type of program. Therefore, Denver Water pursued other conservation measures that were more cost effective and that would have higher customer participation. Part of the issue with offering a program of this type to single family residential customers is that the majority of those customers already irrigate at a level that is below the efficiency level for turf. Replacing this turf with water efficient landscaping (that still requires irrigation) nets the utility very little water savings. This is compounded by the cost of this landscaping compared to the cost of water. The net result to the customer is that it is a costly endeavor, that even when offset by a utility rebate would take years to pay back the investment. Denver Water has concentrated its outdoor water conservation program as follows: “Use Only What You Need” – a nationally recognized conservation marketing campaign, and xeriscape – a term developed by Denver Water to describe landscaping that has little to no watering needs. Denver Water does have a program in place which provides incentives to remove bluegrass from large landscapes including park systems and those owned by business parks and homeowners associations.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering</p>

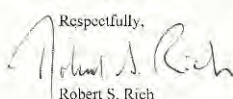
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1653-8 (ID 1727): <i>Denver Water is profit driven with extensive diversions already in place. I understand that there are plans to sell water outside of the Denver Water District.</i></p> <p>Response #1653-8: Denver Water is a not-for-profit organization and a significant portion of Denver Water's annual costs do not vary with the amount of water sold. When those costs increase, the costs to rate payers increase as well. Denver Water has an existing agreement to provide up to 3,000 AF of water to Arvada if Denver Water increases storage on the north end of its system. However, Arvada is an existing customer of Denver Water and the remainder of the water developed by the proposed Project would be used by Denver Water within its existing CSA.</p> <p>Denver Water does not have any plans to sell additional water outside its CSA and the CRCA (see FEIS Section 4.3) restricts Denver Water's service area.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1653-9 (ID 1726): <i>We need to preserve our beautiful mountain waters such as the Fraser River which was named the 3rd most endangered River in the US in 2005 by American Rivers. We need to preserve Grand take the largest natural lake in Colorado.</i></p> <p>Response #1653-9: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1653-10 (ID 1725): <i>Denver Water proposes 6 alternatives. I am in favor of the No Action Alternative because it is the least destructive choice.</i></p> <p>Response #1653-10: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1654 Robert S. Rich</p>	<p style="text-align: center;">Robert S. Rich [Redacted]</p> <p style="text-align: center;">December 8, 2009</p> <p style="text-align: center;">Scott Franklin U.S. Army Corps of Engineers 9307 South Wadsworth Blvd. Lakewood, CO 80128</p> <p style="text-align: center;"><u>Fraser River</u></p> <p>Dear Mr. Franklin:</p> <p>I am writing to encourage you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special natural resource at risk. I request that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment; with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts fail to maintain fish and other aquatic life, they will be strengthened; and • Ensure that rigorous conservation measures, including efforts to reduce outside water use through more water-wise landscaping, are adopted in all of the cities which will be supplied through this project. <p>I trust you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it.</p> <p style="text-align: center;">Respectfully,  Robert S. Rich [Redacted]</p>	<p>Comment #1654-1 (ID 1739): <i>I am writing to encourage you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special natural resource at risk.</i></p> <p>Response #1654-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1654-2 (ID 1738): <i>I request that you ensure the project moves forward only if adequate measures are included to: • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment; with full consideration of the accumulated impacts of past, present and proposed diversions;</i></p> <p>Response #1654-2: FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>Comment #1654-3 (ID 1737): <i>Provide for ongoing monitoring and adaptive management, so that if mitigation efforts fail to maintain fish and other aquatic life, they will be strengthened.</i></p> <p>Response #1654-3: Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1654-4 (ID 1736): <i>Ensure that rigorous conservation measures, including efforts to reduce outside water use through more water-wise landscaping, are adopted in all of the cities which will be supplied through this project.</i></p> <p>Response #1654-4: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1654-5 (ID 1735): <i>I trust you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it.</i></p> <p>Response #1654-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1655 Mr. and Mrs. Glen H. Roat, Jr.</p>	 <p>Gross Dam Expansion Issue -</p> <p>Let's get right to the heart of things.</p> <p>It wasn't until Monday February 1, 2010 (through a community news source) this homeowner even heard rumblings of an expansion to Gross Reservoir/Dam.</p> <p>Colorado law requires property owners proposing additions or changes on a structure or lot filing to give notice of their intentions to all vicinity property owners . In a project this size, notification is usually a letter of notice, a copy of construction plans, feasibility and impact reports, as well as studies related to impact on transportation, infrastructure and air quality. Non of this data was given to us to research, review and then agree with or refute. No rumblings of expansions at all until Feb. 2010.</p> <p>In a drought year Denver water places water use under conservation measures. In the 2002-2005 drought season, they maintained a 30,000 acre foot surplus during each year of this drought. Denver water themselves, stated that they saved 9 billion gallons in savings this last year alone- with conservation efforts. Denver Water's "support" to expand Gross Reservoir/Dam has been a comment related to the pattern of land use, population density and that growth rate along the "entire" front range. Stating growth would occur regardless of whether or not there is a water supply to support it and ready or not - the people are coming & water suppliers will have to supply them with whatever water amount they demand, and for whatever purpose the demand."</p> <p>Why- would a municipal or government agency accept development applications, under such circumstances? State statue, clearly states & requires county governments to take aware of such demands on water supply <u>before</u> approving any development applications. Additionally, courts have ruled - "Any environmental effect is reasonably foreseeable- if it is sufficiently likely, that a person of <u>ordinary prudence</u> would take it into account in reaching the same decision."</p> <p>Giving water to someone, when you don't have any, is likened to asking for light that doesn't shine. If water quantities don't exist, how can you draw from a source, much less supply?</p> <p>I suspect Denver water decisions makers did not disclose any of the normal data, much less an environmental or community impact reports because they concluded that a person of ordinary prudence would reject this proposal as not being a sound option or decision.</p> <p><u>The proposed expansion is merely a bandage on a issue that will be revisited when no further options for water tapping or storage exist.....Basically we are there now.</u></p> <p>High density growth coupled with a lack of educating those moving into Colorado about our high plains desert local - has set our resources up for a disaster.</p> <p style="text-align: center;">-1-</p>	<p>Comment #1655-1 (ID 1760): <i>It wasn't until Monday February 1, 2010 (through a community news source) this homeowner even heard rumblings of an expansion to Gross Reservoir/Dam. Colorado law requires property owners proposing additions or changes on a structure or lot filing to give notice of their intentions to all vicinity property owners . In a project this size, notification is usually a letter of notice, a copy of construction plans, feasibility and impact reports, as well as studies related to impact on transportation, infrastructure and air quality. None of this data was given to us to research, review and then agree with or refute. No rumblings of expansions at all until Feb. 2010.</i></p> <p>Response #1655-1: The Corps maintains a Project mailing list comprised of the general public (i.e., citizens, private companies, non-governmental organizations, etc.) that attended the scoping meetings as well as current contacts at the appropriate local, State, and Federal agencies. Informational postcards describing the public hearings, including the meeting in Boulder, were distributed to members of the Project mailing list on October 28, 2009.</p> <p>Information on the public hearings was also distributed as display ads in the following local newspapers:</p> <ul style="list-style-type: none"> • Denver Post, 10/30/09 and 11/30/09 • Sky-Hi Daily News, 10/30/09 and 11/30/09 • Mountain Messenger (Coal Creek Canyon), November Issue • Highlander Monthly, November Issue • Boulder Daily Camera, 10/30/09 and 11/30/09 <p>Public hearing information was also displayed on the Corps' Project website at https://www.nwo.usace.army.mil/html/od-tl/eis/moffat-eis.html and Denver Water's website at</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">  </p> <p>The real issue is not how to get more water out of a limited and dying water source (one that has been over tapped) or where to store it, but how to use what is out there (for everyone) in an effect manner. High density growth, home owner associations managed from out of state groups and the gross misuse of Colorado's limited resources all add up to a major disaster. Without change, no amount of stock piling, increasing sizes or building of new reservoirs will resolve the problem.....hence a bandage.</p> <p>If you look at Colorado's history we have proven that building new Reservoirs - for drinking, for flood control etc. has never provided a long term answer. Non of these facilities were, are or will be adequate given the uses and demands placed on them. The whole cycle is a crumbling foundation, which must be dealt with. Without doing so, this fundamental Colorado issue will find itself faltering time and time again, as it has for the past 40+ years. I have watched it happen many times, as a fifth generation native of Colorado.</p> <p>There will NEVER be enough stock piling of water resources in Colorado without a change in habits or perceptions when it comes to water use and conservation measures. Unlike many other states in our country, Colorado does not have use of grand sized lakes, rivers or other resources to pull upon. Colorado is an aired desert that has been compacted from one state line to another with growth. As such we must begin to shift our thought patterns. Small changes by many, add up to make major changes for everyone.</p> <p>Examples: Homeowners associations in many cases require the planting of Kentucky Blue grass. This is NOT a native plant to our area. On the other hand Colorado rye fescues which looks very much like Kentucky Blue grass is <u>Native</u> to Colorado. Because of this you can still have a manicured lawn only with less disease or need to cater to it, and you lower your water demands and bills. This is all due to the effective water consumption.</p> <p>Instead of displacing an entire community to reconstruct a reservoir, doesn't it seem like a smarter idea to try these possible lower impact solutions???.....</p> <ul style="list-style-type: none"> * Use of native dry land fescue in place of bluegrass. (It looks remarkably like bluegrass), * Use low water drought tolerant vegetations as listed in booklets such as - The Rocky Mountain Planting Guide -which is available at most nurseries . * Have policies in place for rotating days of watering among others (not just in drought years). * Water at proper times (not the heat of day) and for shorter periods. * Use of rain sensors. * Authorize ideals & communities which promote lower density developments. * Have Guidelines for non potable tanks in new communities - using gray water on communal land. * Guide homeowner associations to control the percentage of land planted/ types of plantings used. * Incentives for higher percentage of water friendly plantings. * Fines for watering road ways, and other water waste. <p style="text-align: center;">-2-</p>	<p>http://www.denverwater.org/SupplyPlanning/Planning/FutureWaterSupply/WaterSupplyProjects/Moffat/.</p> <p>Denver Water maintains a Project mailing list comprised of the general public, groups, and governmental entities who request to join. Sign-up sheets are present at all public meetings as well as on Denver Water's web page. Information on the public hearings for the FERC process was also distributed as display ads in the following newspapers (July 2008): Sky-High News, Highlander, and Daily Camera.</p> <p>Meetings were held on the following dates at these locations (July 2008): Gross Reservoir, Coal Creek Canyon Community Center (Cresant Village), Spice of Life Event Center (Boulder), and Trinity United Methodist Church (Denver).</p> <p>Public hearing information was also displayed on Denver Water's website at http://www.denverwater.org/SupplyPlanning/Planning/FutureWaterSupply/WaterSupplyProjects/Moffat/.</p> <p>Since the release of the DEIS, Denver Water and other groups have held additional public meetings in the Coal Creek Canyon and Boulder areas to develop a mitigation plan and answer questions from participants.</p> <p>Comment #1655-2 (ID 1759): <i>In a drought year Denver water places water use under conservation measures. In the 2002-2005 drought season, they maintained a 30,000 acre foot surplus during each year of this drought. Denver water themselves, stated that they saved 9 billion gallons in savings this last year alone- with conservation efforts.</i></p> <p>Response #1655-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>




Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;"></p> <p>Coal Creek Residents FACTS.</p> <ul style="list-style-type: none"> * We are an established community with NO means for reconstruction. * We have a single ONE lane road up and down. Should something happen on this main road, we are stuck neither being able to leave or get home. Everything comes to a halt as we can't take another road around any issues. * Our commutes not only for work, but daily services such as schools, groceries, gas etc. all stop being fast easy runs (relative to living on a mountain). * We occasionally deal with cement, dump or delivery trucks that are unable to maintain the set speed, due to the grade/altitude & curves in our community. One single truck backs up 10+ other vehicles. Without a place for them to pull over/allow passing the 30 minute (drive up/down off) the mountain turns into 50+. Slowing from construction, will make it how long??? More traffic will surely lead to more backups/breakdowns causing impatient drivers and increased accidents. * The rapidness of emergency transportation will be hindered. Be it accidents, medical, or forest fires. Construction increases a already high risk for forest fires. ** Coal Creek is an Volunteer response team. * Blasting in such a boulder field local is known to result in seismic activity. This may result in the possible following issues for us and our homes. <ul style="list-style-type: none"> *Collapse of our wells, the sole source of water for drinking, cooking, animals, fire control. *Shatter windows. * Emotional toll on human and animals (domestic or wild) alike. * Unrelenting visual or audio input = negative impact on the resident sleep, work performance and marriages due to the constant barrage. * Our sole main road and possible other roads will have resulting damage. Who will repair and pay for this damage? Will it be repaired along the way or only when the expansion is completed six years later? When repaired, what impact will the repairs them selves, have on the canyon commuters in addition to the expansion? What about damage to vehicles from debris falling from trucks, damaged roadways and who will pay for that damage? *Should we have the mandatory need to sell our homes, it will be nearly impossible due to any construction, or it will surely be at a loss of equity during construction. <p style="text-align: center;">-3-</p>	<p>Comment #1655-3 (ID 1758): <i>Denver Water's "support" to expand Gross Reservoir/Dam has been a comment related to the pattern of land use, population density and that growth rate along the "entire" front range. Stating growth would occur regardless of whether or not there is a water supply to support it and ready or not - the people are coming & water suppliers will have to supply them with whatever water amount they demand, and for whatever purpose the demand."</i></p> <p>Response #1655-3: The Corps analyzed demand in the Project area based on demographic projections from various Federal and local sources. The Corps also independently evaluated the demand projections stated in Denver Water's IRP, which would help guide water management over the next 40 years. As stated in DEIS Section 4.14 and FEIS Section 5.16: "Several recent studies have suggested that there is no substantive causal relationship between population growth and the development of water, or vice versa. One such study is summarized as follows:</p> <p>The relationship between water and growth in the modern West is often misunderstood. Historically, it has been assumed that water development was a necessary precursor to growth and, similarly, that a lack of water development could act as a deterrent to growth. While these premises may have been true at one time, recent experience in Colorado and other western states shows both ideas are now unsupportable. To the contrary, many of the regions showing the highest rates of growth in the West – from Douglas County, Colorado to Las Vegas, Nevada – show the opposite trend; growth is actually highest in some of the driest regions. Similarly the veto of the proposed Two Forks Dam on the East Slope by the EPA in 1990 certainly did not deter growth in the Denver Metropolitan area. Examples also suggest that an abundance of water is often insufficient to stimulate growth. The experience of Pueblo is illustrative. (Nichols</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">  </p> <p>SUMMATION:</p> <p>If Denver Water works to their planned timeline (24/7/375x 6 years), they are expect us to live in a CONSTRUCTION SITE ENVIROMENT for 52,416 hours. They expect us to deal with non stop stimulus from the blasting, large earth construction equipment, helicopters and castings of work lights, all for 500,000 people that haven't arrived in Colorado and will be a separate community from that of ours???And our sanity, tranquility and very lifestyle- will cist to exist for that time if not beyond???????</p> <p>Let that sink in for a moment..... 52,416 hours!!</p> <p>The expansion of Gross Dam is for Denver and Jefferson counties. NOT for Boulder county where I reside. Yes, counties must grow in order to thrive but it's growth can't out pace it's resources due to it's residents demands or it's governments short sightedness. Denver and Jefferson Counties benefit by this expansion in growth, taxes and services. Denver and Jefferson counties have not shown any signs of conserving water, using long term smart growth, much less to attempt building new reservoirs in their own counties. Their county residents are not impacted by the Gross Dam proposed expansion.</p> <p>This is not a simple short term, low impact improvement that can be easily excused or dealt with. It WILL be a long, frustrating and unrelenting venture. Remember 52,416 hours. Our commutes, services, solitude, privacy, way of life, home values and ability to move about will be NEGATIVELY IMPACTED.</p> <p>If Denver Water thinks there is any validity for this project, at all then why will they not disclose how the proposed enlargement benefits our local Coal Creek Canyon community?</p> <p>Step up - Give each home owner the proposal, feasibility and impact reports and address our concerns & disclose a plan for dealing with these items.....</p> <p style="text-align: center;">-1-</p>	<p>et al. 2001).</p> <p>Numerous other studies analyzing the relationship between growth and water reach similar conclusions, such as Western Land Use Trends and Policy: Implications for Water Resources (Riebsame 1997); Atlas of the New West (Center of the American West 1997); and Water in the West: The Challenge for the Next Century (Western Water Policy Review Advisory Commission 1998). This growth issue was evaluated and dismissed by the Corps during the NEPA analysis of the Two Forks Dam and Reservoir Project in 1988 – “As a result of including the No Federal Action scenario, the Corps was able to answer a major question then being asked – would growth continue in the Denver Metropolitan area without Federal approval of a major water supply project. The evaluation of the No Federal Action scenario determined that growth would occur regardless of Federal action.” (Corps 1998, Page 3-3 of the Final EIS Metropolitan Denver Water Supply EIS, Volume 1.)”</p> <p>Independent studies, such as the State-wide Water Supply Initiative, commissioned by the State of Colorado anticipate high growth rates for Colorado, including the East Slope. These high growth rates are likely to occur regardless of what water projects are constructed.</p> <p>Comment #1655-4 (ID 1757): <i>Why- would a municipal or government agency accept development applications, under such circumstances? State statue, clearly states & requires county governments to take aware of such demands on water supply before approving any development applications. Additionally, courts have ruled - "Any environmental effect is reasonably foreseeable- if it is sufficiently likely, that a person of ordinary prudence would take it into account in reaching the same decision." Giving water to someone, when you don't have any, is likened to asking for light that doesn't shine. If water quantities don't exist,</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	 <p>Fire- What measure are in place for insuring that our fire risk does not increase due to construction? Should a fire occur, how are we going to get to it with extra construction traffic - that slows response time and who will fight it (beyond our volunteer squad)? What is the expanded (construction) plan for and it's impact on our current evacuation routes/plans? What about any cost incurred due to a construction fire? What about reforestation?</p> <p>Emergency- What is the plan for emergencies (medical/accidents/fire/evacuation) when the roads are blocked/clogged/closed due to construction traffic?</p> <p>Traffic- How can traffic be reduced/eliminated during construction? Maybe bus in/out employees? Dealing with drivers frustrations when equipment can't maintain speed/can't pull over.</p> <p>People/Animals- How are we expected to sleep with lights, helicopters and blasting going on 24/7/365? Stress on our persons, in the way of emotional and physical stress will occur - Who is paying the resulting medical bills? What about our animals (wild and domesticated) who will surely occur stress as well? Let's not forget the stress on marriages and families. We require quiet sometime! At 24/7/365 for six years (52,416 hours) when does this happen? Why are removed trees buried? Can't they go as firewood to Gross Dam residents? Why we should be disrupted for six years when we don't get anything out of it?</p> <p>Other- How is this going to leave any water to tap from, or avoid this again in 1-15 years than it has in the past. How does THIS community benefit by being disrupted and displaced for SIX years?</p> <p>Fact is - this expansion is solely so that the Candelas project can move forward.</p> <p>We know the Corp has the power to reject this permit request or make recommendations which are legally binding. We implore of you, PLEASE - consider innovative water uses and conservation measures as an alternative and not disrupt our community, homes wildlife and lives.</p> <p>Thank You -</p>  <p>Mr. & Mrs. Glen H. Roat Jr. </p>	<p><i>how can you draw from a source, much less supply? I suspect Denver water decisions makers did not disclose any of the normal data, much less an environmental or community impact reports because they concluded that a person of ordinary prudence would reject this proposal as not being a sound option or decision.</i></p> <p>Response #1655-4: The Corps notes the comment.</p> <p>Comment #1655-5 (ID 1756): <i>The proposed expansion is merely a bandage on an issue that will be revisited when no further options for water tapping or storage exist..... Basically we are there now.</i></p> <p>Response #1655-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1655-6 (ID 1755): <i>High density growth coupled with a lack of educating those moving into Colorado about our high plains desert local - has set our resources up for a disaster. The real issue is not how to get more water out of a limited and dying water source (one that has been over tapped) or where to store it, but how to use what is out there (for everyone) in an effect manner. High density growth, home owner associations managed from out of state groups and the gross misuse of Colorado's limited resources all add up to a major disaster. Without change, no amount of stock piling, increasing sizes or building of new reservoirs will resolve the problem hence a bandage.</i></p> <p>Response #1655-6: The Corps notes the comment.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1655-7 (ID 1754): <i>If you look at Colorado's history we have proven that building new Reservoirs - for drinking, for flood control etc. has never provided a long term answer. None of these facilities were, are or will be adequate given the uses and demands placed on them. The whole cycle is a crumbling foundation, which must be dealt with. Without doing so, this fundamental Colorado issue will find itself faltering time and time again, as it has for the past 40+ years. I have watched it happen many times, as a fifth generation native of Colorado.</i></p> <p>Response #1655-7: The Corps notes the comment.</p> <p>Comment #1655-8 (ID 1753): <i>There will NEVER be enough stock piling of water resources in Colorado without a change in habits or perceptions when it comes to water use and conservation measures. Unlike many other states in our country, Colorado does not have use of grand sized lakes, rivers or other resources to pull upon. Colorado is an aired desert that has been compacted from one state line to another with growth. As such we must begin to shift our thought patterns. Small changes by many, add up to make major changes for everyone. Examples: Homeowners associations in many cases require the planting of Kentucky Blue grass. This is NOT a native plant to our area. On the other hand Colorado rye fescues which looks very much like Kentucky Blue grass is Native to Colorado. Because of this you can still have a manicured lawn only with less disease or need to cater to it, and you lower your water demands and bills. This is all due to the effective water consumption. Instead of displacing an entire community to reconstruct a reservoir, doesn't it seem like a smarter idea to try these possible lower impact solutions???. * Use of native dry land fescue in place of bluegrass. (It looks remarkably like bluegrass). * Use low water drought tolerant vegetations as listed in booklets such as - The</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Rocky Mountain Planting Guide -which is available at most nurseries . * Have policies in place for rotating days of watering among others (not just in drought years). * Water at proper times (not the heat of day) and for shorter periods. * Use of rain sensors. * Authorize ideals & communities which promote lower density developments. * Have Guidelines for non potable tanks in new communities - using gray water on communal land. * Guide homeowner associations to control the percentage of land planted/ types of plantings used. * Incentives for higher percentage of water friendly plantings. * Fines for watering road ways, and other water waste.</i></p> <p>Response #1655-8: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area. The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1655-9 (ID 1752): <i>Coal Creek Residents FACTS. * We are an established community with NO means for reconstruction. * We have a single ONE lane road up and down. Should something</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>happen on this main road, we are stuck neither being able to leave or get home. Everything comes to a halt as we can't take another road around any issues. * Our commutes not only for work, but daily services such as schools, groceries, gas etc. all stop being fast easy runs (relative to living on a mountain). * We occasionally deal with cement, dump or delivery trucks that are unable to maintain the set speed, due to the grade/altitude & curves in our community. One single truck backs up lo+ other vehicles. Without a place for them to pull over/allow passing the 30 minute (drive up/down off) the mountain turns into 50+. Slowing from construction, will make it how long??? More traffic will surely lead to more backups/breakdowns causing impatient drivers and increased accidents. * The rapidness of emergency transportation will be hindered. Be it accidents, medical, or forest fires. Construction increases an already high risk for forest fires. ** Coal Creek is an Volunteer response team.</i></p> <p>Response #1655-9: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77S, SHs 72, 93, and 128, US 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During peak construction period, about 35 trucks could deliver material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Emergency vehicles would have access to the same response routes during construction that currently exist. If an emergency vehicle needed access to closed road, access would be granted. Additionally, construction contractors would pull over to allow emergency response vehicles to pass as needed.</p> <p>Comment #1655-10 (ID 1751): <i>Coal Creek Residents FACTS. * Blasting in such a boulder field local is known to result in seismic activity. This may result in the possible following issues for us and our homes. *Collapse of our wells, the sole source of water for drinking, cooking, animals, fire control. *Shatter windows. * Emotional toll on human and animals (domestic or wild) alike. * Unrelenting visual or audio input = negative impact on the resident sleep, work performance and marriages due to the constant barrage.</i></p> <p>Response #1655-10: Blasting would occur when onsite aggregate quarries are in operation (approximately the first year of aggregate processing) and in the early phases of construction related to the dam foundation excavation. Typically the frequency of blasting is every 3 to 4 days due to the time it takes to drill the blast holes. Blasting would occur only during daylight hours, typically occurring at the end of the day shift. Safety precautions would be taken to keep unauthorized personnel away from blast areas. Blasts would be designed such that holes are appropriately spaced, loaded and stemmed to prevent air blast, excessive vibration and to limit any fly rock migrating outside of the blast zone. The blasting agent used would likely be ANFO, which when handled appropriately is a relatively safe and stable product used in construction and quarrying operations throughout the U.S.. The blast would be designed to produce relatively low vibrations (ground motions) and blasting adjacent to the dam would be controlled to prevent any damage to the dam or the existing foundation. All blasting would be designed and</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>overseen by a Colorado-licensed Blasting Engineer. Blasting would be designed specifically for Gross Dam and would only create ground vibrations and land motion appropriate for the dam structure to sustain. A seismograph would be used to monitor ground motions and air pressure (noise) vibrations produced from the blasting operations to ensure that acceleration thresholds are not exceeded. The land motion created from blasting dissipates rapidly from the source (i.e., the dam) and would be insufficient to collapse wells in the region.</p> <p>Comment #1655-11 (ID 1750): <i>Coal Creek Residents FACTS. * Our sole main road and possible other roads will have resulting damage. Who will repair and pay for this damage? Will it be repaired along the way or only when the expansion is completed six years later? When repaired, what impact will the repairs themselves, have on the canyon commuters in addition to the expansion? What about damage to vehicles from debris falling from trucks, damaged roadways and who will pay for that damage?</i></p> <p>Response #1655-11: CDOT is responsible for maintenance of the State highways such as SH 72. Boulder County is responsible for maintenance of county roads, such as CR 77S, CR 132, etc. Boulder County maintains Gross Dam Road (CR 77S) from SH 73 to the railroad tracks. Denver Water currently maintains Gross Dam Road from the railroad track crossing to Flagstaff Road. During construction, Denver Water or its contractor would be responsible for maintaining all of Gross Dam Road. Denver Water would work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1655-12 (ID 1749): <i>Coal Creek Residents FACTS. *Should we have the mandatory need to sell our homes, it will be nearly impossible due to any construction, or it will surely be at a loss of equity during construction.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1655-12: An expanded analysis of impacts to communities surrounding Gross Reservoir was included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Comment #1655-13 (ID 1748): <i>SUMMATION: If Denver Water works to their planned timeline (24/7/375x 6 years), they are expect us to live in a CONSTRUCTION SITE ENVIRONMENT for 52,416 hours. They expect us to deal with non stop stimulus from the blasting, large earth construction equipment, helicopters and castings of work lights, all for 500,000 people that haven't arrived in Colorado and will be a separate community from that of ours??? And our sanity, tranquility and very lifestyle-will cist to exist for that time if not beyond??????? Let that sink in for a moment 52,416 hours!!</i></p> <p>Response #1655-13: Construction activity is not anticipated to occur 24 hours a day, 7 days a week for 6 years. As stated in DEIS Section 2.8.1: "Construction of all Project facilities would occur year-round. The estimated construction period varies for each of the action alternatives from approximately 3 years for Alternatives 8a and 10a to approximately 4 years for the Proposed Action. Refer to Table 2-16 for the estimated construction schedule for each action alternative. Detailed construction schedules are provided in Appendix D-1. Most construction would likely occur during the day, however, double or triple shifts up to 24 hours per day operation are possible. Work hours for all construction would be limited in conformance with applicable local ordinances. Due to the short construction schedule and the substantial scope of the Project, construction activities would be performed concurrently where possible."</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1655-14 (ID 1747): <i>The expansion of Gross Dam is for Denver and Jefferson counties. NOT for Boulder county where I reside. Yes, counties must grow in order to thrive but it's growth can't out pace it's resources due to its residents demands or it's governments short sightedness. Denver and Jefferson Counties benefit by this expansion in growth, taxes and services. Denver and Jefferson counties have not shown any signs of conserving water, using long term smart growth, much less to attempt building new reservoirs in their own counties. Their county residents are not impacted by the Gross Dam proposed expansion.</i></p> <p>Response #1655-14: Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>As stated in 33 CFR Part 320, which are, in part, the Federal regulations governing the Corps' review of Section 404 of the Clean Water Act, the decision whether to issue a Section 404 Permit is based on an evaluation of the probable impacts of the proposed activity on the public interest. In other words, the Corps will conduct a public interest review weighing the impacts and benefits of the Project as part of its Section 404 Permit evaluation.</p> <p>Comment #1655-15 (ID 1746): <i>This is not a simple short term, low impact improvement that can be easily excused or dealt with. It WILL be a long, frustrating and unrelenting venture. Remember 52,416 hours. Our commutes, services, solitude, privacy, way of life, home values and ability to move about will be NEGATIVELY IMPACTED.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1655-15: The Corps notes the comment.</p> <p>Comment #1655-16 (ID 1745): <i>If Denver Water thinks there is any validity for this project, at all then why will they not disclose how the proposed enlargement benefits our local Coal Creek Canyon community? Step up - Give each home owner the proposal, feasibility and impact reports and address our concerns & disclose a plan for dealing with these items.</i></p> <p>Response #1655-16: A description of the Project and associated impacts was presented in the DEIS. The DEIS was available electronically on the Corps' website.</p> <p>Additionally, hard copies of the DEIS were available for review at the public hearings and at the following locations:</p> <ul style="list-style-type: none"> • Denver Water • Corps Denver Regulatory Office • Arvada Library • Boulder County Main Library • Denver Central Library • Fraser Valley Library • Golden Library • Granby Library • Kremmling Library • Summit County Library North Branch • Summit County Library South Branch • Thornton Branch Library <p>Comment #1655-17 (ID 1744): <i>Fire- What measure are in place for insuring that our fire risk does not increase due to construction? Should a fire occur, how are we going to get to it with extra</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>construction traffic - that slows response time and who will fight it (beyond our volunteer squad)? What is the expanded (construction) plan for and its impact on our current evacuation routes/plans? What about any cost incurred due to a construction fire? What about reforestation?</i></p> <p>Response #1655-17: With the exception of limited road closures planned near the dam, emergency vehicles would have access to the same response routes during construction that currently exist. If an emergency vehicle needed access to a closed road, access would be granted. Additionally, construction contractors would pull over to allow emergency response vehicles to pass as needed.</p> <p>Comment #1655-18 (ID 1743): <i>Emergency- What is the plan for emergencies (medical/accidents/fire/evacuation) when the roads are blocked/clogged/closed due to construction traffic?</i></p> <p>Response #1655-18: Emergency vehicles would have access to the same response routes during construction that currently exist. If an emergency vehicle needed access to closed road, access would be granted. Additionally, construction contractors would pull over to allow emergency response vehicles to pass as needed.</p> <p>Comment #1655-19 (ID 1742): <i>Traffic- How can traffic be reduced/eliminated during construction? Maybe bus in/out employees? Dealing with drivers frustrations when equipment can't maintain speed/can't pull over.</i></p> <p>Response #1655-19: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1655-20 (ID 1741): <i>People/Animals- How are we expected to sleep with lights, helicopters and blasting going on 24/7/365? Stress on our persons, in the way of emotional and physical stress will occur - Who is paying the resulting medical bills ? What about our animals (wild and domesticated) who will surely occur stress as well? Let's not forget the stress on marriages and families. We require quiet sometime! At 24/7/365 for six years (52,416 hours) when does this happen? Why are removed trees buried? Can't they go as firewood to Gross Dam residents? Why we should be disrupted for six years when we don't get anything out of it? Other- How is this going to leave any water to tap from, or avoid this again in 1-15 years than it has in the past. How does THIS community benefit by being disrupted and displaced for SIX years? Fact is - this expansion is solely so that the Candelas project can move forward.</i></p> <p>Response #1655-20: In general, construction activities would occur during the day and night lighting would not be required other than for safety and security purposes. However, there may be infrequent periods during the construction phase of the Project when double or even triple work shifts would be required. Increased night lighting would be required during these infrequent periods and it would be visible from surrounding nearby residences and wildlife during this construction activity. Work hours for all construction would be limited in conformance with applicable local ordinances. Following completion of construction, lighting on the raised dam would be the same as currently exists. Therefore, no long term impacts from lighting are expected.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Blasting would occur when onsite aggregate quarries are in operation (approximately the first year of aggregate processing) and in the early phases of construction related to the dam foundation excavation. Typically the frequency of blasting is every 3 to 4 days due to the time it takes to drill the blast holes. Blasting would occur only during daylight hours, typically occurring at the end of the day shift.</p> <p>Denver Water would implement the following possible alternative forest residue disposal options:</p> <ol style="list-style-type: none"> 1. Burning in an ACI. 2. Grinding whole trees and hauling to a landfill. 3. Loading forest residue into trucks and hauling to a landfill. <p>Some of the forest residue could also be turned into products (e.g., saw timber, firewood, etc.) and the remaining un-merchantable material would be disposed of by a combination of the three options. All opportunities to utilize some of the material to reduce the residue volume would be explored. Denver Water intends to convert as much of the timber as possible into merchantable forest products such as saw timber and firewood to reduce the amount of residue that needs to be disposed.</p> <p>Denver Water evaluated several tree removal options. Limited road access to the reservoir shore, steep slopes and large rock outcrops complicate tree removal in most areas along the shoreline. Ground-based systems are proposed where roads exist or where temporary road construction is possible. Hydro-axing is proposed in the upper reaches of Forsythe Canyon due to steep slopes and heavy rock. Helicopter yarding is proposed where road access is not available or impossible to construct. The tree removal plan shows several possible landing sites for helicopters during tree removal and some of these are below the Lakeshore neighborhood. Due to the</p>



Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>expense of using helicopters, Denver Water would keep the use of helicopters to a minimum. Denver Water would develop the final tree removal plan in cooperation with the USFS, Colorado State Forest Service, and Boulder County. Denver Water has proposed working with the USFS to identify recycling opportunities. The current Forest Management Plan is under the authority of FERC in a joint effort with the USFS. The Corps believes that Denver Water would comply with any conditions required by FERC.</p> <p>Denver Water is not guaranteeing 3,000 AF of water for the Candelas development. If the proposed Project is constructed, Denver Water would make available 3,000 AF of water to the City of Arvada per a 1999 IGA between Denver Water and Arvada. The selling of water to Candelas by Arvada is a decision the City of Arvada would make at its own discretion. The 1999 IGA with Arvada is based on the construction of a water supply project on the north end of Denver Water's system. If the amount of water delivered to the Moffat Treatment Plant (north end) is not increased, then Denver Water has no obligation to provide additional water to Arvada.</p> <p>Comment #1655-21 (ID 1740): <i>We know the Corp has the power to reject this permit request or make recommendations which are legally binding. We implore of you, PLEASE - consider innovative water uses and conservation measures as an alternative and not disrupt our community, homes wildlife and lives.</i></p> <p>Response #1655-21: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental and social effects according to NEPA and the Corps' Clean Water Act Section 404 regulations. Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the 34,000 AF/yr water supply shortfall identified by Denver Water would be met through conservation, so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>



Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1656 Monte and Sylvia Roberts</p>	<div style="text-align: center;">  </div> <p>February 9, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Co 80128</p> <p>Dear Sir or Madam:</p> <p>My wife and I currently reside in Grand County. We write this letter in regard to the Fraser River System. We have seen the traction sand in the river, the low flow and mosses of summer, and the diminished fishery. As concerned citizens we request the Preferred Alternative, (with mitigation).</p> <p>As former residents of the Front Range, (Lakewood), for thirty years, we can relate to suburban use of water. The home we owned was re-landscaped over a long period of time. Looking back, I wish some of those changes were done sooner than later. We removed a pool, xeroscaped, and put in a sprinkler system. These conservation efforts not only cut back on water use but increased our home's value. A more aggressive water conservation program should be mandated and enforced to a higher degree than currently in force.</p> <p>Tourism is Grand County's main industry. I personally work for the U.S. Forest Service as a tourism advisor during the May-September season. Most visitors are from the Front Range. These visitors, and those from the rest of the world, come for the many natural forms of beauty of this area: The Mountains, the Rivers and Streams, the Wildlife and all the related recreational uses. (The forest loss from Beetle-kill has already impacted our environment and economy.)</p> <p>These things must be preserved. Preservation can only happen through Education, Conservation, and Responsible Decision Makers.</p> <p>Sincerely,</p> <p>Monte and Sylvia Roberts</p> <div style="text-align: center;">   </div>	<p>Comment #1656-4 (ID 1764): <i>My wife and I currently reside in Grand County. We write this letter in regard to the Fraser River System. We have seen the traction sand in the river, the low flow and mosses of summer, and the diminished fishery. As concerned citizens we request the Preferred Alternative, (with mitigation).</i></p> <p>Response #1656-4: Since the release of the DEIS, Denver Water, CDOT, Grand County, and others funded and constructed a sediment removal facility at Denver Water's Fraser River diversion. This facility captures incoming sediment and provides access for removing sediment from the system. It is intended to help offset sediment loading resulting from traction sand. It is anticipated that this facility will reduce, but not eliminate traction sand loading into the Fraser River.</p> <p>Comment #1656-3 (ID 1763): <i>As former residents of the Front Range, (Lakewood), for thirty years, we can relate to suburban use of water. The home we owned was re-landscaped over a long period of time. Looking back, I wish some of those changes were done sooner than later. We removed a pool, xeroscaped, and put in a sprinkler system. These conservation efforts not only cut back on water use but increased our home's value. A more aggressive water conservation program should be mandated and enforced to a higher degree than currently in force.</i></p> <p>Response #1656-3: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1656-2 (ID 1762): <i>Tourism is Grand County's main industry. I personally work for the U.S. Forest Service as a tourism advisor during the May-September season. Most visitors are from the Front Range. These visitors, and those from the</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>rest of the world, come for the many natural forms of beauty of this area: The Mountains, the Rivers and Streams, the Wildlife and all the related recreational uses. (The forest loss from Beetle-kill has already impacted our environment and economy.)</i></p> <p>Response #1656-2: The Corps notes the comment.</p> <p>Comment #1656-1 (ID 1761): <i>These things must be preserved. Preservation can only happen through Education , Conservation, and Responsible Decision Makers.</i></p> <p>Response #1656-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>



Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1657 Donna Rogers</p>	<div style="text-align: center;">  </div> <p>February 8, 2010</p> <p>Scott Franklin, Moffat EIS Project Mgr. U.S. Army Corps of Engineers 9307 South Wadsworth Blvd. Denver, CO 80128</p> <p>Dear Scott,</p> <p>I have been a resident of Coal Creek Canyon for 38 years. I have seen many changes over the years, some good some not so good.</p> <p>There are many water needs in this area, which we can't seem to do much about, but the Denver Water Board seems to have a way of providing for their customers. Now, I'm not against the Denver Water Board I think they do try to take care of their own needs.</p> <p>My objection to the Proposed Expansion of Gross Dam is why doesn't the Denver Water Board spend some time on finding ways to conserve water and having the residents and businesses do the same. I see a lot of waste of water in Arvada and know quite a few people in Arvada who agree that more water could and needs to be conserved.</p> <p>Maybe the new project "Candelas" needs some better ideas before they are constructed; on conserving water or handling their water needs in a different way.</p> <p>We all need to work on a more feasible and common sense approach to this problem, along with considering all the other problems that will come to this area with all the construction. I won't repeat them all here, I'm sure you have heard them all before.</p> <p>Thanks for your time,</p> <p>Donna Rogers </p>	<p>Comment #1657-1 (ID 1767): <i>I have been a resident of Coal Creek Canyon for 38 years. I have seen many changes over the years, some good some not so good. There are many water needs in this area, which we can't seem to do much about, but the Denver Water Board seems to have a way of providing for their customers. Now, I'm not against the Denver Water Board I think they do try to take care of their own needs.</i></p> <p>Response #1657-1: The Corps notes the comment.</p> <p>Comment #1657-2 (ID 1766): <i>My objection to the Proposed Expansion of Gross Dam is why doesn't the Denver Water Board spend some time on finding ways to conserve water and having the residents and businesses do the same. I see a lot of waste of water in Arvada and know quite a few people in Arvada who agree that more water could and needs to be conserved. Maybe the new project "Candelas" needs some better ideas before they are constructed; on conserving water or handling their water needs in a different way.</i></p> <p>Response #1657-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project.</p>


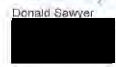
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought. Arvada submitted a conservation plan to the State of Colorado and it was approved in September of 2012.</p> <p>Comment #1657-3 (ID 1765): <i>We all need to work on a more feasible and common sense approach to this problem, along with considering all the other problems that will come to this area with all the construction. I won't repeat them all here, I'm sure you have heard them all before.</i></p> <p>Response #1657-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1660 Donald Sawyer</p>	<div style="text-align: center;">  Don Sawyer </div> <div style="text-align: center;">  </div> <p>Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>14 February 2010</p> <p>Ref: Moffat Filling EIS</p> <p>Dear Mr. Franklin:</p> <p>I am writing to express my concerns in regards to the Moffat Filling EIS. My experience while fishing the Fraser river has been that when wading the river one needs a 'walking' stick to avoid slipping on the slick river bottom. The slick rocks are a result of insufficient flushing flows because of the reduced water flows from the taking of water by Denver water. My concerns about the health of the Fraser river and Denver Water department's taking of Fraser river water are expressed below.</p> <ul style="list-style-type: none"> • Conservation. Denver residents should be required to conserve water in an ongoing basis just as Fraser river valley residents are required to conserve. Some of us in the Fraser valley on wells are restricted to in-house use of water and I think Denver residents (and the other subdivisions that receive transmountain water) should be restricted to a similar use of transmountain water use. To reduce the water use of those in the region where water taking occurs, and not restrict the use of those receiving the transmountain water flies in the face of reasonableness. Denver is located in a semi arid environment yet approximately 50% of Denver's water is used to maintain landscapes consistent with a more humid climate. This is a misuse of valuable water and such use of transmountain water is detrimental to the health of the Fraser river. • Fish habitat. Much of the water in the lower reaches of the Fraser River is a result of waste water treatment which lowers the quality of the water for all riparian species. The Fraser river must have sufficient water flows that are not a product of waste water treatment to provide untreated water to dilute the waste water treated flow to improve the habitability of the Fraser river ecology. During summer river flows when Denver has utilized the 'bypass' authority, the high water temperature jeopardizes fish and invertebrate life. Tributary water to the Fraser river must also be temperature controlled to mitigate the high temperatures in the Fraser river. If the current EIS statement and plan is approved, then the quality of the river water and health of the river environment must be evaluated periodically and this evaluation period should not be greater than every ten years and perhaps more frequently. • Water flow. Water flow requirements must be addressed to assure adequate flows to keep water temperatures within livability limits for the aquatic life. Denver Water has shown to date no regard for maintaining adequate flows in some tributaries to the Fraser river (Jim Creek as an example). Indeed, the water flow needs to be adequate to flush sediment and traction sand from the highway system from clogging the stream bed pores which must be suitable for fish reproduction. Such flows must be allowed during the annual peak runoff flows and in sufficient magnitude to assure adequate cleansing of the Fraser river bed. This requirement must be allowed annually and extend for a minimum of four days. Evaluation of this requirement must be done at least every ten years and more frequently if there are signs of failure to clean the river bed. If the flows prove to be inadequate, then flows must be increased until the desired results are achieved. Flows that are cleansing may not be sufficient to prevent the river system from stress. Regular, periodic evaluations must be made to assure that the flow in the river is maintaining a stress free condition. • Stream restructuring. With the reduced stream flow resulting from Denver's long standing taking of Fraser river flows, the river bed (formed by annual high flows unrestricted by man) is not configured properly for the low flows and healthy water temperatures. With additional reduced flows, the river bed must be restructured to improve the habitat for fish and other riparian species. The river bed must be narrowed 	<p>Comment #1660-1 (ID 1784): <i>I am writing to express my concerns in regards to the Moffat Filling EIS. My experience while fishing the Fraser river has been that when wading the river one needs a 'walking' stick to avoid slipping on the slick river bottom. The slick rocks are a result of insufficient flushing flows because of the reduced water flows from the taking of water by Denver water. My concerns about the health of the Fraser river and Denver Water department's taking of Fraser river water are expressed below.</i></p> <p>Response #1660-1: The assumption that the slick rocks and algae in the Fraser River are due to Denver Water diversions and insufficient flushing flows is not correct. This issue is discussed in more detail in revised discussions in the FEIS in Sections 3.11, 4.6.11, and 5.11.</p> <p>Comment #1660-2 (ID 1783): <i>Conservation. Denver residents should be required to conserve water in an ongoing basis just as Fraser river valley residents are required to conserve. Some of us in the Fraser valley on wells are restricted to in house use of water and I think Denver residents (and the other subdivisions that receive transmountain water) should be restricted to a similar use of transmountain water use. To reduce the water use of those in the region where water taking occurs, and not restrict the use of those receiving the transmountain water flies in the face of reasonableness. Denver is located in a semi arid environment yet approximately 50% of Denver's water is used to maintain landscapes consistent with a more humid climate. This is a misuse of valuable water and such use of transmountain water is detrimental to the health of the Fraser river.</i></p> <p>Response #1660-2: Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
	<p>and deepened to channel reduced water flow into a deeper channel to control water temperature.</p> <ul style="list-style-type: none"> <p>Forest fire. Should a forest fire occur in the Fraser river basin, the probability of pollution of the river with ash and debris from rain and snow melt runoff is certain. This damage can only be repaired by peak flows over a considerable time period. Denver's taking of additional water during peak flow will greatly hamper achieving the required flows. Once Denver is authorized to take the additional water, it will be almost impossible to return to peak flows required to mitigate the damage. How will the damage be repaired? With existing flows, there is already inadequate flow to flush the river bed of sediments. Additional taking of water from the basin is certain death of the river ecology. Water flow must be at such a rate after any firming approval to provide for this possibility, because Denver will not be able to return sufficient water for such needs.</p> <p>Limit service. Denver must be prevented from servicing other municipalities with water from the Fraser river basin, because the additional taking of water will not be mitigated by other sources. Other front range municipalities must meet their water resource from a source other than the Fraser basin. Other municipalities which may seek to take water from the tributaries to the Fraser river basin must be required to mitigate any detrimental effects to the Fraser river. It's time for the front range to limit its use of water through conservation and limited growth.</p> <p>Ecosystem destruction. Ecosystems are complex and sometimes delicate. Changes may not become noticeable for several years if not decades. There must be a means of evaluating any deterioration of this valuable ecosystem and mitigating any damage. Evaluation of the health of this ecosystem must be performed frequently and any damage reversed or mitigated.</p> <p>Tourism. The Fraser river is an important source of recreation for tourists. Tourism is a very valuable source of income for much of the Fraser river valley. Without a healthy, vibrant river, tourism will be diminished and a fragile economy will be jeopardized. The river must maintain water flows sufficient to produce quality fishing and other recreational uses that are currently in use.</p> <p>Climate change. Climate change is a major concern for the health of the Fraser river. The climate has been warming for decades and there is no reason to expect a reversal any time soon—if ever. Assuming that the temperature will continue to increase over time, it is incumbent that measures are taken to assure sufficient river flow to maintain adequate flow for fish to survive and reproduce and other riparian species including insect life to flourish as well. Increased ambient air temperatures will certainly lead to higher water temperatures which are detrimental to fish and invertebrate aquatic life. Water flows in the Fraser river and its tributaries must remain at sufficient levels to control temperature and provide flushing flows to maintain a healthy river environment. Periodic evaluation of the health of the river must be made and mitigation of any detrimental issues must be made.</p> <p>Recharging aquifers. A significant population of the Fraser river valley depends upon wells for their water use. The EIS must mitigate any possible deleterious effects upon the recharging of the aquifer. Any reduction to the viability of aquifers must be mitigated and periodic evaluations of the health of the aquifer must be a part of the EIS. Monitoring wells should be utilized to determine if the firming has reduced the aquifer's recharging and have been depleted by the reduced flows in the upper Colorado River basin. If the aquifers should be drawn down as a result of a transmountain water diversion, then Denver Water must reestablish water flows sufficient to restore damaged aquifers.</p> <p>Thank you for considering these comments.</p> <p> Donald Sawyer </p>	<p>18,000 AF. Denver Water is implementing an aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.</p> <p>Comment #1660-3 (ID 1782): <i>Fish habitat. Much of the water in the lower reaches of the Fraser River is a result of waste water treatment which lowers the quality of the water for all riparian species. The Fraser river must have sufficient river flows that are not a product of waste water treatment to provide untreated water to dilute the waste water treated flow to improve the habitability of the Fraser river ecology. During summer river flows when Denver has utilized the 'Bypass' authority, the high water temperature jeopardizes fish and invertebrate life. Tributary water to the Fraser river must also be temperature controlled to mitigate the high temperatures in the Fraser river. If the current EIS statement and plan is approved, then the quality of the river water and health of the river environment must be evaluated periodically and this evaluation period should not be greater than every ten years and perhaps more frequently.</i></p> <p>Response #1660-3: The CDPHE, via the discharge permit for the Fraser WWTP, has determined that up to 21% of the Fraser may be WWTP effluent. Calculated future conditions indicate actual effluent percentages would be less than this, the current permitted maximum allowed.</p> <p>Additional water quality analysis, including temperature, was performed for the Fraser River. Please refer to FEIS Sections 4.6.2 and 5.2.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>The proposed Project would not increase the frequency of reduced bypass flows.</p> <p>Comment #1660-4 (ID 1781): <i>Water flow. Water flow requirements must be addressed to assure adequate flows to keep water temperatures within livability limits for the aquatic life. Denver Water has shown to date no regard for maintaining adequate flows in some tributaries to the Fraser river (Jim Creek as an example). Indeed, the water flow needs to be adequate to flush sediment and traction sand from the highway system from clogging the stream bed pores which must be suitable for fish reproduction. Such flows must be allowed during the annual peak runoff flows and in sufficient magnitude to assure adequate cleansing of the Fraser river bed. This requirement must be allowed annually and extend for a minimum of four days. Evaluation of this requirement must be done at least every ten years and more frequently if there are signs of failure to clean the river bed. If the flows prove to be inadequate, then flows must be increased until the desired results are achieved. Flows that are cleansing may not be sufficient to prevent the river system from stress. Regular, periodic evaluations must be made to assure that the flow in the river is maintaining a stress free condition.</i></p> <p>Response #1660-4: High spring flows would still occur with the Moffat Project on-line. FEIS Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Creek, which is downstream of all of Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years; however, the figures in FEIS Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to FEIS Sections 4.6.1 and 5.1. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>to the ROW agreements with the USFS.</p> <p>DEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic biological resources in the Project area. Appropriate mitigation for predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flow changes as a result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, a review of historic photos, a sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Similar to other water right holders, Denver Water diverts water that is physically and legally available at its diversion points based on its decreed water rights subject to minimum bypass flows and calls from</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>downstream senior water rights. As a result, Denver Water, at times, diverts all the stream flow from tributaries in the Fraser River Basin such as Jim Creek that do not have minimum bypasses. This is how Denver Water has operated in the past and plans to operate in the future. This is a function of Denver Water's existing Moffat Collection System and not the proposed Moffat Project.</p> <p>An additional sediment sampling and transport modeling site was added on the Fraser River to better understand impacts of traction sand. Sensitivity analyses were added to the assessment to evaluate impacts of additional sediment inputs at all model sites. Historic responses of the Fraser River were also completed using aerial photographs and channel cross section to evaluate past impacts. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes considering traction sand are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>An IHA analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Based on temperature monitoring by the GCWIN in 2007 and 2008, most of the monitoring results indicated that stream temperatures in the Fraser River Basin and upper Colorado River are within State regulatory standards. Temperatures exceeding the regulatory limit have occurred in the Fraser River and Ranch Creek in July and August. Reductions in stream flow associated with the Moffat Project during the summer months could contribute to higher water temperature on hot summer</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>days. The DEIS identified negligible to moderate temperature impacts on the Fraser River and Ranch Creek. In addition, the Colorado River between Windy Gap Reservoir and Kremmling, can have low flows in the late summer and experience elevated water temperatures on hot summer days. The DEIS identified negligible temperature impacts on this portion of the Colorado River associated with the Moffat Project. Denver Water's Conceptual Mitigation Plan is included in FEIS Appendix M. Where required, mitigation will be prepared as part of a Section 404 Permit. Denver Water would continue its participation in and support of GCWIN to monitor stream temperatures in the Fraser River Basin and Colorado River. In addition, Denver Water would work with the Municipal Subdistrict of the NWCD to install and monitor two continuous real-time temperature monitoring stations on the Colorado River to be located at the Windy Gap stream gage and upstream of the Williams Fork River confluence. IF specified temperature values are exceeded in August, Denver Water would forgo up to 250 AF of diversions from its Fraser River Collection System after August 1 by releasing 4 cfs if the Proposed Action is diverting. The 250 AF is an estimate of the amount of diversion caused by the Proposed Action during the month of August. Denver Water, the Municipal Subdistrict of NWCD, and other stakeholders would work together to establish the specific temperature thresholds.</p> <p>Comment #1660-5 (ID 1780): <i>Stream restructuring. With the reduced stream flow resulting from Denver's long standing taking of Fraser river flows, the river bed (formed by annual high flows unrestricted by man) is not configured properly for the low flows and healthy water temperatures. With additional reduced flows, the river bed must be restructured to improve the habitat for fish and other riparian species. The river bed must be narrowed and deepened to channel reduced water flow into a deeper channel to control water temperature.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1660-5: Current problems caused by low flows during the late summer and in dry years are partially due to operations of the existing Moffat Project. The proposed Moffat Project would not cause additional flow reductions during those times since there would be no additional diversions due to the Moffat Project in the late summer or in dry years. There would be no additional diversions in dry years because Denver Water would divert the maximum amount physically and legally available under their existing water rights without additional storage on-line. Denver Water is not responsible for mitigating for the effects of reduced stream flows if they are not caused by the Moffat Project. Additional temperature analysis was performed for the Fraser River and the Colorado River. See FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1660-6 (ID 1779): <i>Forest fire. Should a forest fire occur in the Fraser river basin, the probability of pollution of the river with ash and detritus from rain and snow melt runoff is certain. This damage can only be repaired by peak flows over a considerable time period. Denver's taking of additional water during peak flow will greatly hamper achieving the required flows. Once Denver is authorized to take the additional water, it will be almost impossible to return to peak flows required to mitigate the damage. How will the damage be repaired? With existing flows, there is already inadequate flow to flush the river bed of sediments. Additional taking of water from the basin is certain death of the river ecology. Water flow must be at such a rate after any firming approval to provide for this possibility, because Denver will not be able to return sufficient water for such needs.</i></p> <p>Response #1660-6: The effects as a result of pine beetle infestation alone would not impact channel morphology, however forest lost and vegetation community changes from the beetle could potentially have several impacts. Pine beetle kills</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>could result in decreased sediment supply as dying forests decrease overhead shading resulting in increased groundcover and mid-story vegetation, therefore decreasing erosion potential. Pine beetle could also result in increased sediment supply if a large fire were to occur, fueled by the killed timber increasing erosion potential.</p> <p>Impacts of both pine beetle infestation coupled with large scale fires are speculative and resulting channel morphological responses were not quantified, however, In the event of a large scale fire, sediment supply would likely significantly increase for a finite amount of time. Sediment deposition from increased erosion would be expected to occur in streams during this time. As groundcover and the forest regenerates, sediment supply would be reduced and likely return to levels near Current Conditions. As revegetation occurs, sediment supply would decrease and at some point during the revegetation process sediment supply would once again drop below sediment transport capacity. When sediment transport capacity exceeds sediment supply, sediment that had been deposited as a result of the fire would begin to erode and transport downstream. The system would continue along this erosional process until it returned to its equilibrium.</p> <p>The proposed Project would result in decreased sediment transport capacity. Following a major fire it can therefore be predicted that either with or without the Project, the river system would eventually return to the same dynamic state. The duration of time required for the stream to return to equilibrium would likely be greater with the proposed Project.</p> <p>Comment #1660-7 (ID 1778): <i>Limit service. Denver must be prevented from servicing other municipalities with water from the Fraser river basin, because the additional taking of water will not be mitigated by other sources. Other front range</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>municipalities must meet their water resource from a source other than the Fraser basin. Other municipalities which may seek to take water from the tributaries to the Fraser river basin must be required to mitigate any detrimental effects to the Fraser river. It's time for the front range to limit its use of water through conservation and limited growth.</i></p> <p>Response #1660-7: Denver Water would not expand its current service area if the Moffat Project is constructed. The CRCA (see FEIS Appendix M) was the product of 5 years of mediated negotiations among 34 parties, restricts the geographic limits of Denver Water's service area. Denver Water agreed that the service area would not expand beyond the current boundaries. The Moffat Project is just one part of the three-pronged approach Denver Water takes to meet customer demand. Conservation and recycling would both increase above current levels in order to meet the demand of Denver Water's customers.</p> <p>Comment #1660-8 (ID 1777): <i>Ecosystem destruction. Ecosystems are complex and sometimes delicate. Changes may not become noticeable for several years if not decades. There must be a means of evaluating any deterioration of this valuable ecosystem and mitigating any damage. Evaluation of the health of this ecosystem must be performed frequently and any damage reversed or mitigated.</i></p> <p>Response #1660-8: As described in FEIS Appendix M, Denver Water would be required to submit a final Mitigation Plan, before the Corps would issue a Section 404 Permit.</p> <p>Comment #1660-9 (ID 1776): <i>Tourism. The Fraser river is an important source of recreation for tourist. Tourism is a very valuable source of income for much of the Fraser river valley. Without a healthy, vibrant river, tourism will be diminished and a</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>fragile economy will be jeopardized. The river must maintain water flows sufficient to produce quality fishing and other recreational uses that are currently in use.</i></p> <p>Response #1660-9: The socioeconomic impacts in Grand County are driven in part by the conclusions about impacts upon other resources (recreation, visual resources, surface water, etc.) and the resulting impacts upon overall tourism and economic activities that occur in the county. The analysis of socioeconomic impacts to Grand County was reviewed and expanded as appropriate in FEIS Section 5.19 to revise or support the socioeconomic conclusions.</p> <p>Comment #1660-10 (ID 1775): <i>Climate change. Climate change is a major concern for the health of the Fraser river. The climate has been warming for decades and there is no reason to expect a reversal any time soon-if ever. Assuming that the temperature will continue to increase over time, it is incumbent that measures are taken to assure sufficient river flow to maintain adequate flow for fish to survive and reproduce and other riparian species including insect life to flourish as well. Increased ambient air temperatures will certainly lead to higher water temperatures which are detrimental to fish and invertebrate aquatic life. Water flows in the Fraser river and its tributaries must remain at sufficient levels to control temperature and provide flushing flows to maintain a healthy river environment. Periodic evaluation of the health of the river must be made and mitigation of any detrimental issues must be made.</i></p> <p>Response #1660-10: The DEIS addressed climate change in Section 5.4 and described the impacts of expected yield of the Moffat Collection System related to earlier and more concentrated spring runoff:</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>"Many scientific studies have predicted an increase in temperatures, resulting in changes in the composition of winter precipitation and the timing of spring snowmelt. In other words, as temperatures rise the West could receive more winter precipitation in the form of rain versus snow and the snow that does accumulate would melt earlier in the spring than in past years. In Colorado, the onset of stream flows from melting snow has shifted earlier by two weeks between 1978 and 2004 and the timing of runoff is projected to shift earlier in the spring (Western Water Assessment 2008). If this were to occur, it is likely that the yield of the Moffat Collection System would decrease due to existing capacity constraints. The Moffat Collection System canals and tunnels are only capable of transporting a certain amount of water before reaching hydraulic limitations. Additionally, South Boulder Creek is only capable of transporting approximately 1,200 cfs at Pinecliffe before flooding concerns arise. If runoff were to occur in a condensed timeframe, it is likely that hydrological limitations in the Moffat Collection System could decrease Denver Water's yield. Furthermore, a condensed timeframe for runoff would likely mean a reduction in the number of days Denver Water's water rights is in priority to divert water. This could result in Denver Water building additional replacement sources to ensure an adequate supply of water for its customers."</p> <p>Although there is valid concern in the scientific community that global climate change may affect future water supplies in Colorado, there is little quantitative or even qualitative data with which to accurately predict or portray these changes, and consequently with which to integrate reasonably predictable cumulative effects of the proposed actions. The 2008 Western Water Assessment report prepared for the Colorado Water Conservation Board , Climate Change in Colorado, indicates that, "In all parts of Colorado, no consistent long-term trends in annual precipitation have been detected. Variability is high, which makes detection of trends difficult. Climate model projections do not agree whether annual mean</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>precipitation would increase or decrease in Colorado by 2050. The multi-model average projection shows little change in annual mean precipitation.” The 2009 U.S. Geological Survey (USGS) Circular 1331, Climate Change and Water Resources Management: A Federal Perspective, indicates that climate change has the potential to affect many sectors in which water resource managers play an active role, including water availability. The study concedes two pertinent points: 1) the best available scientific evidence based on observations from long-term monitoring networks indicates that climate change is occurring, although the effects differ regionally; and 2) climate change could affect all sectors of water resources management, since it may require changed design and operational assumptions about resource supplies, system demands or performance requirements, and operational constraints. These studies reflect general trends that there is concern regarding the effect of climate change on the proposed actions, however the absence of quantified climate-induced decreases in flows related to the proposed actions makes it impossible to evaluate the changes with more than a speculative quality. Climate change is an evolving science, as such the Corps updated the FEIS (Section 4.4) with more recent technical documentation, including the joint Corps-Bureau of Reclamation planning document titled Addressing Climate Change in Long-Term Water Resources Planning and Management: User Needs for Improving Tools and Information (Brekke 2011).</p> <p>The concept of systematic interdisciplinary approach to cumulative effects is central to NEPA analysis, but is only defined in very general terms. Accordingly, the Act relies on the Federal agencies to establish their own methods and procedures within the framework of the regulatory requirements. Therefore, the Corps as the lead Federal Agency of the Moffat Project EIS believes the analysis is adequate.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1660-11 (ID 1774): <i>Recharging aquifers. A significant population of the Fraser river valley depends upon wells for their water use. The EIS must mitigate any possible deleterious effects upon the recharging of the aquifer. Any reduction to the viability of aquifers must be mitigated and periodic evaluations of the health of the aquifer must be a part of the EIS. Monitoring wells should be utilized to determine if the firming has reduced the aquifer's recharging and have been depleted by the reduced flows in the upper Colorado River basin. If the aquifers should be drawn down as a result of a transmountain water diversion, then Denver Water must reestablish water flows sufficient to restore damaged aquifers.</i></p> <p>Response #1660-11: Information provided in DEIS Sections 3.1 and 3.2 provides the reasons the Project would not cause a reduction in groundwater recharge rates or groundwater levels within the Fraser River valley, except minor temporary declines are possible in areas immediately next to some of the streams during the high-runoff period. Along the Fraser River below Denver Water diversion points, groundwater levels may decrease slightly compared to Current Conditions during May, June, and July. However, the maximum change in groundwater level would be less than the maximum change in stream level because groundwater flows toward the streams from the surrounding upland areas and discharges into the streams in the vicinity of the Denver Water diversion points and further downstream. Hydraulic modeling results provided in the DEIS indicate that detailed study Site FR1 near Winter Park would have the largest reduction in stream level due to the Denver Water diversions; a drop in peak stage of about 8 inches. Thus, the effects of the Project on alluvial groundwater levels would be small compared to the natural seasonal and year to year fluctuations.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>The Project effects on groundwater levels in wells are expected to be less than the daily fluctuations in drawdown caused by pumping the wells. These conclusions are supported by the following discussion on groundwater/surface water interactions in the Fraser Valley.</p> <p>Groundwater/Streams Interactions The timing of the proposed diversions for the Moffat Project would not substantially affect recharge to the groundwater flow system in the West Slope watersheds. Rather the Moffat Project would result in minimal effects to recharge, and to groundwater resources overall, for the following reasons.</p> <p>The Moffat Project would not make any changes to the locations or the physical features of any of the existing Denver Water diversion structures west of the Continental Divide. FEIS Figure 3.4-1 shows the Denver Water diversions (red dots) within the Fraser River Basin and subdivides the watershed into areas to facilitate discussion of this concern. Throughout the blue area on Figure 3.4-1, groundwater recharge rates would remain the same as for Current Conditions, both in the upland areas and along the stream channels, because these areas lie upstream of the Denver Water diversion points. The blue area on Figure 3.4-1 constitutes a large percentage of the whole watershed. This relatively large area includes the highest land surface elevations, precipitation rates, and snowpack amounts in this watershed. The geologic map from a recent USGS Technical Report referenced in DEIS Section 3.2 (Apodaca and Bails 1999) shows glacial deposits and alluvial gravels underlie large portions of the watershed. Fractured crystalline rocks are also exposed in many areas of the basin. Precipitation and snowmelt infiltrate through permeable soils and fractured rocks in upland areas of the basin to become groundwater recharge. Similar hydrogeologic conditions exist in the Williams Fork watershed where there are other Denver Water</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>diversion structures.</p> <p>Figure 3.4-1 also shows another large area (shaded brown) in which the Proposed Action would not affect groundwater recharge rates, neither in the upland areas or along the stream channels, because these areas do not lie downstream of any Denver Water diversion points. Fundamental hydrogeologic concepts indicate substantial recharge of the groundwater flow system occurs throughout the blue and brown areas on Figure 3.4-1. Recharge rates would not change in any of those areas as a consequence of the Moffat Project.</p> <p>Unaffected stream channel segments are depicted with light blue lines on Figure 3.4-1. Along the light blue lines within the darker blue areas (above the diversion points), the rate and volume of groundwater recharge due to seepage through the bottom of stream beds would not change due to the Project at any time of year. In areas downstream of the diversions but outside the stream channel limits (all the white areas on Figure 3.4-1), there also would not be any change in groundwater recharge rates at any time because the hydrogeologic factors controlling infiltration of precipitation and snowmelt into the ground surface would not be altered by the Project. Thus, the Project has no potential to change the groundwater recharge rates within the vast majority of the whole watershed, which includes all the blue, brown and white areas on Figure 3.4-1. For the same reasons, the proposed diversions would have no effect on groundwater recharge rates throughout the vast majority of the Williams Fork River watershed.</p> <p>In the other parts of the Fraser River watershed directly downstream of the diversions, the Moffat Project only has the potential to slightly reduce groundwater recharge rates in the relatively small areas directly beneath and immediately beside the stream channels where the diversions may reduce the extent of seasonal overbank flooding areas. These potentially affected stream channel</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>segments within the Fraser River watershed are shown as gold lines on Figure 3.4-1. DEIS Section 4.2 describes stream flow reductions that could conceivably cause some reduction in the groundwater levels and recharge rates directly beneath the stream channels (gold lines on Figure 3.4-1) if percolation through the streambeds decrease. Groundwater recharge rates would decline only where (1) the stream reach is losing water by seepage to groundwater under Current Conditions, and (2) the diverted stream flow causes a substantial decrease in the stream level and the wetted area of the stream bed. The potential change in groundwater recharge along those stream segments (along the gold lines) would be small for reasons described in the following paragraphs.</p> <p>A USGS Technical Report (Apodaca and Bails 1999) for the Fraser River Basin, which is cited in DEIS Section 4.2, shows groundwater level contour patterns that indicate hydraulic gradients, and thus groundwater flow directions, converge toward the streams in the central portion of the Fraser River Basin downstream of the Denver Water diversion points. Where water table contours show groundwater flow converging toward streams, this indicates the streams are not providing groundwater recharge, but rather the streams are receiving groundwater discharge. The groundwater level contours also indicate that recharge occurs in higher elevation areas, upland of the streams. Therefore, even though the increased diversions may cause slight reductions of the stream levels, there would not be a consequent reduction in groundwater recharge within the watershed.</p> <p>Information provided in the DEIS indicates there would be, at most, very small changes in groundwater recharge directly beneath potentially affected stream segments. Streambed percolation rates would remain essentially the same as for Current Conditions because: (1) stream levels and wetted areas of the streams would only</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>change by a very small amount, and (2) the hydraulic conductance (permeability) of the streambed materials would not be affected by the Moffat Project. Stream flow changes were modeled using the PACSM (described in DEIS Section 3.1), and riparian and wetlands areas are characterized in Section 3.6.5. Details of the methodology used to estimate stream flow changes are presented in DEIS Section 4.1. Details of the methodology used to estimate changes in flood flows, water levels and wetted areas of the stream are presented in DEIS Section 4.6.</p> <p>Streambed seepage rates are expected to decrease by an exceedingly small amount because the timing of the diversions would coincide with high runoff periods in wet or average years. DEIS Appendix H-5 provides a series of flow duration curves based on PACSM results for a number of locations along the Fraser River and tributaries downstream of the diversion points. Flow duration curves are shown in Figures H-5.1 through H-5.11 for several locations of interest in the Fraser River Basin. Those curves indicate that the potential changes in flow durations attributable to the Project would be minimal. As shown by the flow duration curves, flow reductions resulting from the Proposed Action would occur at higher flow rates, which typically correspond with wet years. Table H-6.1 shows the percentage of days from May through June that stream flow changes would occur at several locations of interest. There would be little to no change in stream flow (flow change less than 1 cfs) more than 80% of the time at all locations in the basin upstream of the confluence with St. Louis Creek. Below the confluence with St. Louis Creek there would be little to no change in flow (flow change less than 1 cfs) between 70% and 80% of the time.</p> <p>Hydraulic modeling using the HEC-RAS model has been conducted to analyze the changes in stream flows and flood inundation area, at representative sites downstream of the diversion points. As part of the impact</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>assessment for wetland and riparian areas, DEIS Section 4.6.1.2 provides an analysis of the interaction between stream flow changes and inundated areas in the affected drainage. DEIS Table 4.6-4 provides predicted changes in stream levels and channel widths for four detailed study sites along streams in the Fraser River watershed. The modeling results indicate Site FR1 near Winter Park would have the largest reduction in stream level due to the Denver Water diversions; the peak stream level during a 2-year flow event would drop about 8 inches in that reach.</p> <p>The HEC-RAS model results also show changes in the wetted channel width at that location would be about 1.6 feet, which is very small in comparison to the existing 2-year water profile. DEIS Figure 4.6-1 illustrates the very small change in the 2-year water profile (stream width) that would be caused by the Proposed Action. Even extrapolating over a larger stream length, the reductions of flow-wetted area would be very small (e.g., a 1-mile stream segment would experience a reduction in inundated area of about 0.4 acre).</p> <p>In summary, for the reasons enumerated above, the proposed diversions are expected to have negligible to minor direct impacts on groundwater levels and recharge. Declining stream levels would likely cause only very minor reductions in groundwater levels immediately adjacent to the streams. Overall, groundwater recharge rates would not change substantially within the West Slope watersheds. In wet and average years, the net effect of the Moffat Project on groundwater levels is expected to be negligible. During dry years, there would be no additional water diversions, and thus, the Project would not impact groundwater levels or recharge rates.</p> <p>Another commenter asserts that:</p> <p>The DEIS describes groundwater recharge and discharge as “relatively minor components of the</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>(hydrologic) systems" but the hydrologic budget for the Fraser River Basin shows otherwise. For example, the DEIS Fraser River Basin water budget claims that groundwater discharge amounts to approximately 42,000 AF/yr compared to 64,500 AF of surface flow out of the watershed annually. Thus, groundwater discharge is greater than 10% of the total water budget and about two-thirds of the total surface flow out of the basin.</p> <p>As described in the DEIS, snowmelt runoff during the spring and early summer months causes high stream flows that dominate the hydrologic system in each watershed, whereas groundwater recharge and discharge are relatively minor components of the hydrologic systems in each of the affected watersheds during these times. DEIS Table 3.2-1 provides average annual estimates of the components of the annual hydrologic budget for the Fraser River watershed to facilitate discussion and understanding. In this annual hydrologic budget, the inputs and outputs each total approximately 400,600 AF/yr for an average year. In this table, the values for precipitation, evapotranspiration and consumptive use are the same as those provided by the USGS (Apodaca and Bails 1999).</p> <p>The water budget table (DEIS Table 3.2-1) does not show what the comment suggests. In stating the groundwater discharge amounts to approximately 42,000 AF/yr, the commenter confuses groundwater underflow (GWua), with groundwater discharge (GWdb). In this hydrologic budget table, groundwater underflow represents flow out of the basin below the ground surface whereas groundwater discharge is flow out of the ground surface (e.g., to streams). The comment adds 13,700 AF/yr of groundwater underflow to the amount of groundwater discharge as stream base flow, (GWdb) 28,300 AF/yr, to arrive at the value of 42,000 AF/yr for groundwater discharge. Rather, this table actually indicates that average annual groundwater discharge to the stream base flow is about 28,300 AF/yr, or about 7%</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>of the total water budget. The Moffat Project would not measurably affect groundwater discharge that supports base flow because the proposed diversions would not substantially reduce groundwater levels or recharge rates for the reasons described above.</p> <p>The comment also reflects a misunderstanding of the purpose of providing the simple water budget table and graphic in the DEIS. This information was intended to simply illustrate the hydrologic processes in the watersheds. They were included in the DEIS to help the interested public reader to generally understand the major hydrologic components and how they interrelate. To avoid the type of confusion expressed in this comment and the possibility for others to over-interpret the meaning of the hydrologic budget values, the water budget table (DEIS Table 3.2-1) and graphic are not included in the FEIS.</p> <p>Although it is conceptually reasonable to expect that if groundwater levels were to decline by more than the range of natural temporal fluctuations because of the Project, the productivity of some wells could be affected. However, the magnitude of this potential effect would depend on the amount of static (non-pumping) groundwater level decline at each specific well location compared to the saturated thickness of the aquifer penetrated by the well and the distance between that well and the affected stream segment. Information provided in the DEIS shows that the Project would not cause a reduction in groundwater levels within any of the West Slope basins, except there would possibly be minor temporary declines in areas immediately next to some of the streams during the high-runoff period. Thus, compiling and presenting the information for all the existing wells is not necessary or justified for an EIS-level of analysis. Moreover even if the well information were complete and available from public sources, those data would not provide a basis for the impacts analysis suggested in the comment. Rather, impacts to well</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>productivity could only be evaluated based on the magnitude of changes in stream flows and stream levels, and the distance between the well and the stream.</p> <p>The groundwater flow system is hydraulically interconnected with the potentially affected stream segments and thus groundwater levels immediately adjacent to the streams could change. The Project would only cause minor changes to the duration of the higher stream flows downstream of the existing diversion points during high runoff periods. At most, the additional diversions would cause only a minor change in stream levels downstream the diversion points. The change would only occur during the months when water levels are high. There would be no effect on groundwater levels in the headwater tributaries upstream of the diversion structures or throughout the majority of the Fraser River watershed beyond the immediate limits of the diverted streams. Immediately adjacent to the potentially affected stream segments, groundwater levels would decrease slightly compared to Current Conditions during May, June, and July. However, the maximum change in groundwater level would be less than the maximum change in stream level because groundwater flows toward the streams from the surrounding upland areas and discharges into the streams in the vicinity of the Denver Water diversion points and further downstream. Hydraulic modeling results provided in the DEIS indicate that detailed study Site FR1 near Winter Park would have the largest reduction in stream level due to the Denver Water diversions; a drop in peak stage of about 8 inches.</p> <p>Groundwater levels immediately adjacent to this stream segment would drop less than 8 inches because groundwater flows toward and into the stream due to groundwater recharge in the surrounding uplands. This recharge is derived primarily from infiltration of snowmelt in the uplands above the stream and would not be affected in any way by the Project.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Based on comments from the EPA, the Corps installed groundwater wells in the fall of 2010 to provide measurements of groundwater level elevations and adjacent stream water level elevations in the Fraser River watershed. These data demonstrate the groundwater-surface water relationships described in the DEIS exist downstream of Denver Water diversion points.</p> <p>The FEIS includes additional analyses of stream flow changes in all of the potentially affected stream segments and tributaries to clarify the effects of the Moffat Project and other RFFAs. Additional groundwater data collected in the fall of 2010 was provided and described to further clarify the groundwater-surface water relationships downstream of Denver Water diversion points. The additional stream flow analyses were used with the new groundwater data to further assess the Project effects on groundwater, stream flow, wetlands, and wells along the Fraser River in FEIS Sections 4.6.4, 4.6.8, 5.4 and 5.8.</p> <p>The proposed additional diversions would cause only minor changes in stream levels downstream the diversion points. These changes would only occur during the months when stream levels and groundwater levels are high. There would be no effect on groundwater levels in the headwater tributaries upstream of the diversion structures.</p> <p>Winter Park Shops Expansion Project Data reported by Grand Environmental Services (2009) for the Winter Park Shops Expansion Project have been used to further evaluate the interactions between groundwater and the Fraser River. Based only on the data in that report, it was impossible to determine the groundwater level elevations because there were no measurements of ground surface elevations given for the monitor wells or surface water points. Elevation of the groundwater level at each measurement point, rather</p>


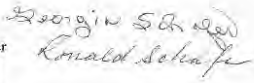
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>than the depth to water below ground surface, defines the hydraulic gradients. Hydraulic gradients between the groundwater and the stream determine groundwater flow directions, and whether groundwater would flow into the stream, or vice versa. Thus it was necessary to also measure the elevation of the ground surface at the monitor wells in order to determine the relationships between groundwater flow and the stream.</p> <p>In October 2010, the monitor wells and adjacent stream levels were accurately surveyed to provide the data needed for calculating groundwater level elevations and hydraulic gradients. Figure 2 is a map of the Winter Park Shops Expansion Project area showing the wells and stream survey point locations. This map also shows the groundwater level elevations corresponding to the water levels measured by Grand Environmental Services on June 29, 2009. On Figure 2, the groundwater level elevations are depicted as water table contours above the sea level datum, feet, mean sea level. Hydraulic gradients, and hence groundwater flow directions, are from higher elevations to lower elevations, perpendicular to the water table contours. Figure 3 provides hydrographs of the groundwater level elevations calculated from the 2010 survey data and the water level measurements during the monitoring period, May 22-August 3, 2009, by Grand Environmental Services (2009). Figure 4 is a hydrologic cross section extending along the groundwater flow direction toward the river, which shows the hydraulic relationships between groundwater and the Fraser River in late June 2009.</p> <p>The data from the Winter Park Shops Expansion Project area clearly demonstrate groundwater flows toward and into the Fraser River, even during the high-flow season. Data on Figure 2 show the hydraulic gradients were toward the Fraser River in late June 2009 when stream flows were high due to snowmelt runoff. In the fall of 2010, the same general pattern of groundwater flow toward the streams was also found at the three other</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>detailed groundwater study areas downstream of Denver Water stream diversion structures in the Fraser Valley. These new groundwater data are provided and further described in the FEIS. All the new data are consistent with and support the conceptual hydrologic model of groundwater-stream interactions described in the DEIS.</p> <p>The well hydrographs on Figure 3 show that groundwater levels are generally slightly higher during the snowmelt period, which is also true for the river levels during the same period. As described in the DEIS, both the stream levels and the groundwater levels are higher during this period because seasonal snowmelt increases runoff, stream flow, and groundwater recharge in uplands during this period. However, the stream level changes do not affect groundwater levels except immediately along the stream margin. Outside that relatively narrow zone adjacent to the stream, groundwater levels remain above the river level and the hydraulic gradients remain toward the river even during the high flow period. Recall that Figure 2 shows the overall pattern of groundwater flow is toward the river during the latter part of the snowmelt period in June. Thus stream flow changes cannot substantially affect groundwater levels. Therefore additional removal of water from the Fraser River and its tributaries planned for this Moffat Project would not substantially effect groundwater levels, public and private wells, or wetlands supported by groundwater discharge. Groundwater level changes along the stream margins would be equal to or less than the stream level changes attributable to this Project. Overall impacts to groundwater in the valley would be negligible.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1661 Georgia and Ronald Schafer</p>	<div style="text-align: right;">  </div> <p>Federal Energy Regulatory Comm. Attn: Sec. Kimberly Bose 888 First St. N.E. Washington, D.C. 20426</p> <p>January 2, 2010</p> <p>Ref: FERC Project 2035</p> <p>Dear Sec. Bose,</p> <p>We are asking that your agency reject the request to expand the Gross Dam Reservoir.</p> <p>The Moffat Project DEIS was not a complete study on the impact of this project. There are two other reservoirs in the plains that would have less impact and be less costly to expand water needs for the city.</p> <p>In lieu of expanding Gross Dam Reservoir, the city should build recycling and purification plans. Landscaping projects should require zero water usage.</p> <p>We have included some other important reasons why a permit should be denied.</p> <ol style="list-style-type: none"> 1. A fault line is in this region. Five to six years of blasting could trigger an earthquake. 2. The homes in this area depend on wells that can be adversely affected. 3. The air quality and other environmental issues will suffer greatly. 4. Using Co. 72, a narrow and busy canyon road, is a safety hazard. CDOT is saying that they do not think they can keep the road in good condition when they consider the amount of truck traffic that this project will cause. It is necessary to use residential roads to get to this site. These roads were not intended nor constructed for this type of traffic. 5. We are told that your office needs 10,000 letters from citizens protesting this project before you will deny the permit. Consider this letter a plea from the 10,000 to 20,000 trees that will be cut down from this expansion. <p>There are many other reasons to deny a permit for this project. We have listed just these few.</p> <p>Thank you for your time.</p> <p>Georgia and Ronald Schafer</p> <div style="text-align: right;">  </div>	<p>Comment #1661-6 (ID 1790): <i>We are asking that your agency reject the request to expand the Gross Dam Reservoir. The Moffat Project DEIS was not a complete study on the impact of this project. There are two other reservoirs in the plains that would have less impact and be less costly to expand water needs for the city. In lieu of expanding Gross Dam Reservoir, the city should build recycling and purification plans. Landscaping projects should require zero water usage.</i></p> <p>Response #1661-6: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1661-1 (ID 1789): <i>We have included some other important reasons why a permit should be denied. 1. A fault line is in this region. Five to six years of blasting could trigger an earthquake.</i></p> <p>Response #1661-1: Section 4.3.1.1 in the DEIS states: "In summary, the proposed dam raise and expansion of Gross Reservoir may increase the potential for reservoir-induced seismicity, but not at substantial levels. Potential issues related to geologic resources will be addressed through geotechnical and seismic studies in the design and construction phases." Additionally, Table 4.20-1 states "Dam raise and expansion may slightly increase the potential for reservoir-induced seismicity." Detailed geotechnical and seismic studies would be conducted as part of the final design and construction phases of the Project.</p> <p>The Livingston Shear Zone and Fault, the Rogers Fault, and the Copeland Fault are not mapped as potentially active and therefore unlikely to create earthquake activity near Gross Reservoir (Kirkham and Rogers 1981). Faults that have been identified in the vicinity of the dam have</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>been deemed inactive so there is little chance that the activation of these faults is possible.</p> <p>Comment #1661-2 (ID 1788): <i>The homes in this area depend on wells that can be adversely affected.</i></p> <p>Response #1661-2: Information provided in DEIS Sections 3.1, 3.2 and 4.2 describes the reasons the Project would not impact wells in any of the West Slope basins. These conclusions are supported by the following discussion on groundwater/surface water interactions in the Fraser Valley.</p> <p>Groundwater/Streams Interactions The timing of the proposed diversions for the Moffat Project would not substantially affect recharge to the groundwater flow system in the West Slope watersheds. Rather the Moffat Project would result in minimal effects to recharge, and to groundwater resources overall, for the following reasons.</p> <p>The Moffat Project would not make any changes to the locations or the physical features of any of the existing Denver Water diversion structures west of the Continental Divide. FEIS Figure 3.4-1 shows the Denver Water diversions (red dots) within the Fraser River Basin and subdivides the watershed into areas to facilitate discussion of this concern. Throughout the blue area on Figure 3.4-1, groundwater recharge rates would remain the same as for Current Conditions, both in the upland areas and along the stream channels, because these areas lie upstream of the Denver Water diversion points. The blue area on Figure 1 constitutes a large percentage of the whole watershed. This relatively large area includes the highest land surface elevations, precipitation rates, and snowpack amounts in this watershed. The geologic map from a recent USGS Technical Report referenced in DEIS Section 3.2 (Apodaca and Bails</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>1999) shows glacial deposits and alluvial gravels underlie large portions of the watershed. Fractured crystalline rocks are also exposed in many areas of the basin. Precipitation and snowmelt infiltrate through permeable soils and fractured rocks in upland areas of the basin to become groundwater recharge. Similar hydrogeologic conditions exist in the Williams Fork watershed where there are other Denver Water diversion structures.</p> <p>Figure 3.4-1 also shows another large area (shaded brown) in which the Proposed Action would not affect groundwater recharge rates, neither in the upland areas or along the stream channels, because these areas do not lie downstream of any Denver Water diversion points. Fundamental hydrogeologic concepts indicate substantial recharge of the groundwater flow system occurs throughout the blue and brown areas on Figure 3.4-1. Recharge rates would not change in any of those areas as a consequence of the Moffat Project.</p> <p>Unaffected stream channel segments are depicted with light blue lines on Figure 3.4-1. Along the light blue lines within the darker blue areas (above the diversion points), the rate and volume of groundwater recharge due to seepage through the bottom of stream beds would not change due to the Project at any time of year. In areas downstream of the diversions but outside the stream channel limits (all the white areas on Figure 3.4-1), there also would not be any change in groundwater recharge rates at any time because the hydrogeologic factors controlling infiltration of precipitation and snowmelt into the ground surface would not be altered by the Project. Thus, the Project has no potential to change the groundwater recharge rates within the vast majority of the whole watershed, which includes all the blue, brown and white areas on Figure 3.4-1. For the same reasons, the proposed diversions would have no effect on groundwater recharge rates throughout the vast majority of the Williams Fork River watershed.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>In the other parts of the Fraser River watershed directly downstream of the diversions, the Moffat Project only has the potential to slightly reduce groundwater recharge rates in the relatively small areas directly beneath and immediately beside the stream channels where the diversions may reduce the extent of seasonal overbank flooding areas. These potentially affected stream channel segments within the Fraser River watershed are shown as gold lines on Figure 3.4-1. DEIS Section 4.2 describes stream flow reductions that could conceivably cause some reduction in the groundwater levels and recharge rates directly beneath the stream channels (gold lines on Figure 3.4-1) if percolation through the streambeds decrease. Groundwater recharge rates would decline only where (1) the stream reach is losing water by seepage to groundwater under Current Conditions, and (2) the diverted stream flow causes a substantial decrease in the stream level and the wetted area of the stream bed. The potential change in groundwater recharge along those stream segments (along the gold lines) would be small for reasons described in the following paragraphs.</p> <p>A USGS Technical Report (Apodaca and Bails 1999) for the Fraser River Basin, which is cited in DEIS Section 4.2, shows groundwater level contour patterns that indicate hydraulic gradients, and thus groundwater flow directions, converge toward the streams in the central portion of the Fraser River Basin downstream of the Denver Water diversion points. Where water table contours show groundwater flow converging toward streams, this indicates the streams are not providing groundwater recharge, but rather the streams are receiving groundwater discharge. The groundwater level contours also indicate that recharge occurs in higher elevation areas, upland of the streams. Therefore, even though the increased diversions may cause slight reductions of the stream levels, there would not be a consequent reduction in groundwater recharge within the</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>watershed.</p> <p>Information provided in the DEIS indicates there would be, at most, very small changes in groundwater recharge directly beneath potentially affected stream segments. Streambed percolation rates would remain essentially the same as for Current Conditions because: (1) stream levels and wetted areas of the streams would only change by a very small amount, and (2) the hydraulic conductance (permeability) of the streambed materials would not be affected by the Moffat Project. Stream flow changes were modeled using the PACSM (described in DEIS Section 3.1), and riparian and wetlands areas are characterized in Section 3.6.5. Details of the methodology used to estimate stream flow changes are presented in DEIS Section 4.1. Details of the methodology used to estimate changes in flood flows, water levels and wetted areas of the stream are presented in DEIS Section 4.6.</p> <p>Streambed seepage rates are expected to decrease by an exceedingly small amount because the timing of the diversions would coincide with high runoff periods in wet or average years. DEIS Appendix H-5 provides a series of flow duration curves based on PACSM results for a number of locations along the Fraser River and tributaries downstream of the diversion points. Flow duration curves are shown on Figures H-5.1 through H-5.11 for several locations of interest in the Fraser River Basin. Those curves indicate that the potential changes in flow durations attributable to the Project would be minimal. As shown by the flow duration curves, flow reductions resulting from the Proposed Action would occur at higher flow rates, which typically correspond with wet years. Table H-6.1 shows the percentage of days from May through June that stream flow changes would occur at several locations of interest. There would be little to no change in stream flow (flow change less than 1 cfs) more than 80% of the time at all locations in the basin upstream of the confluence with St. Louis</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Creek. Below the confluence with St. Louis Creek there would be little to no change in flow (flow change less than 1 cfs) between 70% and 80% of the time.</p> <p>Hydraulic modeling using the HEC-RAS model has been conducted to analyze the changes in stream flows and flood inundation area, at representative sites downstream of the diversion points. As part of the impact assessment for wetland and riparian areas, DEIS Section 4.6.1.2 provides an analysis of the interaction between stream flow changes and inundated areas in the affected drainage. DEIS Table 4.6-4 provides predicted changes in stream levels and channel widths for four detailed study sites along streams in the Fraser River watershed. The modeling results indicate Site FR1 near Winter Park would have the largest reduction in stream level due to the Denver Water diversions; the peak stream level during a 2-year flow event would drop about 8 inches in that reach.</p> <p>The HEC-RAS model results also show changes in the wetted channel width at that location would be about 1.6 feet, which is very small in comparison to the existing 2-year water profile. DEIS Figure 4.6-1 illustrates the very small change in the 2-year water profile (stream width) that would be caused by the Proposed Action. Even extrapolating over a larger stream length, the reductions of flow-wetted area would be very small (e.g., a 1-mile stream segment would experience a reduction in inundated area of about 0.4 acre).</p> <p>In summary, for the reasons enumerated above, the proposed diversions are expected to have negligible to minor direct impacts on groundwater levels and recharge. Declining stream levels would likely cause only very minor reductions in groundwater levels immediately adjacent to the streams. Overall, groundwater recharge rates would not change substantially within the West Slope watersheds. In wet and average years, the net effect of the Moffat Project on groundwater levels is</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>expected to be negligible. During dry years, there would be no additional water diversions, and thus, the Project would not impact groundwater levels or recharge rates.</p> <p>Another commenter asserts that:</p> <p>The DEIS describes groundwater recharge and discharge as “relatively minor components of the (hydrologic) systems” but the hydrologic budget for the Fraser River Basin shows otherwise. For example, the DEIS Fraser River Basin water budget claims that groundwater discharge amounts to approximately 42,000 AF/yr compared to 64,500 AF of surface flow out of the watershed annually. Thus, groundwater discharge is greater than 10% of the total water budget and about two-thirds of the total surface flow out of the basin.</p> <p>As described in the DEIS, snowmelt runoff during the spring and early summer months causes high stream flows that dominate the hydrologic system in each watershed, whereas groundwater recharge and discharge are relatively minor components of the hydrologic systems in each of the affected watersheds during these times. DEIS Table 3.2-1 provides average annual estimates of the components of the annual hydrologic budget for the Fraser River watershed to facilitate discussion and understanding. In this annual hydrologic budget, the inputs and outputs each total approximately 400,600 AF/yr for an average year. In this table, the values for precipitation, evapotranspiration and consumptive use are the same as those provided by the USGS (Apodaca and Bails 1999).</p> <p>The water budget table (DEIS Table 3.2-1) does not show what the comment suggests. In stating the groundwater discharge amounts to approximately 42,000 AF/yr, the commenter confuses GWua, with GWdb. In this hydrologic budget table, groundwater underflow represents flow out of the basin below the ground surface whereas groundwater discharge is flow out of the</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>ground surface (e.g., to streams). The comment adds 13,700 AF/yr of groundwater underflow to the amount of groundwater discharge as stream base flow, (GWdb) 28,300 AF/yr, to arrive at the value of 42,000 AF/yr for groundwater discharge. Rather, this table actually indicates that average annual groundwater discharge to the stream base flow is about 28,300 AF/yr, or about 7% of the total water budget. The Moffat Project would not measurably affect groundwater discharge that supports base flow because the proposed diversions would not substantially reduce groundwater levels or recharge rates for the reasons described above.</p> <p>The comment also reflects a misunderstanding of the purpose of providing the simple water budget table and graphic in the DEIS. This information was intended to simply illustrate the hydrologic processes in the watersheds. They were included in the DEIS to help the interested public reader to generally understand the major hydrologic components and how they interrelate. To avoid the type of confusion expressed in this comment and the possibility for others to over-interpret the meaning of the hydrologic budget values, the water budget table (DEIS Table 3.2-1) and graphic are not included in the FEIS.</p> <p>Although it is conceptually reasonable to expect that if groundwater levels were to decline by more than the range of natural temporal fluctuations because of the Project, the productivity of some wells could be affected. However, the magnitude of this potential effect would depend on the amount of static (non-pumping) groundwater level decline at each specific well location compared to the saturated thickness of the aquifer penetrated by the well and the distance between that well and the affected stream segment. Information provided in the DEIS shows that the Project would not cause a reduction in groundwater levels within any of the West Slope basins, except there would possibly be minor temporary declines in areas immediately next to some of</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>the streams during the high-runoff period. Thus, compiling and presenting the information for all the existing wells is not necessary or justified for an EIS-level of analysis. Moreover even if the well information were complete and available from public sources, those data would not provide a basis for the impacts analysis suggested in the comment. Rather, impacts to well productivity could only be evaluated based on the magnitude of changes in stream flows and stream levels, and the distance between the well and the stream.</p> <p>The groundwater flow system is hydraulically interconnected with the potentially affected stream segments and thus groundwater levels immediately adjacent to the streams could change. The Project would only cause minor changes to the duration of the higher stream flows downstream of the existing diversion points during high runoff periods. At most, the additional diversions would cause only a minor change in stream levels downstream the diversion points. The change would only occur during the months when water levels are high. There would be no effect on groundwater levels in the headwater tributaries upstream of the diversion structures or throughout the majority of the Fraser River watershed beyond the immediate limits of the diverted streams. Immediately adjacent to the potentially affected stream segments, groundwater levels would decrease slightly compared to Current Conditions during May, June, and July. However, the maximum change in groundwater level would be less than the maximum change in stream level because groundwater flows toward the streams from the surrounding upland areas and discharges into the streams in the vicinity of the Denver Water diversion points and further downstream. Hydraulic modeling results provided in the DEIS indicate that detailed study Site FR1 near Winter Park would have the largest reduction in stream level due to the Denver Water diversions; a drop in peak stage of about 8 inches.</p> <p>Groundwater levels immediately adjacent to this stream</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>segment would drop less than 8 inches because groundwater flows toward and into the stream due to groundwater recharge in the surrounding uplands. This recharge is derived primarily from infiltration of snowmelt in the uplands above the stream and would not be affected in any way by the Project.</p> <p>Based on comments from the EPA, the Corps installed groundwater wells in the fall of 2010 to provide measurements of groundwater level elevations and adjacent stream water level elevations in the Fraser River watershed. These data demonstrate the groundwater-surface water relationships described in the DEIS exist downstream of Denver Water diversion points.</p> <p>The FEIS includes additional analyses of stream flow changes in all of the potentially affected stream segments and tributaries to clarify the effects of the Moffat Project and other RFFAs. Additional groundwater data collected in the fall of 2010 was provided and described to further clarify the groundwater-surface water relationships downstream of Denver Water diversion points. The additional stream flow analyses were used with the new groundwater data to further assess the Project effects on groundwater, stream flow, wetlands, and wells along the Fraser River in FEIS Sections 4.6.4, 4.6.8, 5.4 and 5.8.</p> <p>The proposed additional diversions would cause only minor changes in stream levels downstream the diversion points. These changes would only occur during the months when stream levels and groundwater levels are high. There would be no effect on groundwater levels in the headwater tributaries upstream of the diversion structures.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Winter Park Shops Expansion Project</p> <p>Data reported by Grand Environmental Services (2009) for the Winter Park Shops Expansion Project have been used to further evaluate the interactions between groundwater and the Fraser River. Based only on the data in that report, it was impossible to determine the groundwater level elevations because there were no measurements of ground surface elevations given for the monitor wells or surface water points. Elevation of the groundwater level at each measurement point, rather than the depth to water below ground surface, defines the hydraulic gradients. Hydraulic gradients between the groundwater and the stream determine groundwater flow directions, and whether groundwater would flow into the stream, or vice versa. Thus it was necessary to also measure the elevation of the ground surface at the monitor wells in order to determine the relationships between groundwater flow and the stream.</p> <p>In October 2010, the monitor wells and adjacent stream levels were accurately surveyed to provide the data needed for calculating groundwater level elevations and hydraulic gradients. Figure 2 is a map of the Winter Park Shops Expansion Project area showing the wells and stream survey point locations. This map also shows the groundwater level elevations corresponding to the water levels measured by Grand Environmental Services on June 29, 2009. On Figure 2, the groundwater level elevations are depicted as water table contours above the sea level datum (ft, msl). Hydraulic gradients, and hence groundwater flow directions, are from higher elevations to lower elevations, perpendicular to the water table contours. Figure 3 provides hydrographs of the groundwater level elevations calculated from the 2010 survey data and the water level measurements during the monitoring period, May 22- August 3, 2009, by Grand Environmental Services (2009). Figure 4 is a hydrologic cross section extending along the groundwater flow direction toward the river, which shows the hydraulic relationships between groundwater and the Fraser River</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>in late June 2009.</p> <p>The data from the Winter Park Shops Expansion Project area clearly demonstrate groundwater flows toward and into the Fraser River, even during the high-flow season. Data on Figure 2 show the hydraulic gradients were toward the Fraser River in late June 2009 when stream flows were high due to snowmelt runoff. In fall 2010, the same general pattern of groundwater flow toward the streams was also found at the three other detailed groundwater study areas downstream of Denver Water stream diversion structures in the Fraser Valley. These new groundwater data are provided and further described in the FEIS. All the new data are consistent with and support the conceptual hydrologic model of groundwater-stream interactions described in the DEIS.</p> <p>The well hydrographs on Figure 3 show that groundwater levels are generally slightly higher during the snowmelt period, which is also true for the river levels during the same period. As described in the DEIS, both the stream levels and the groundwater levels are higher during this period because seasonal snowmelt increases runoff, stream flow, and groundwater recharge in uplands during this period. However, the stream level changes do not affect groundwater levels except immediately along the stream margin. Outside that relatively narrow zone adjacent to the stream, groundwater levels remain above the river level and the hydraulic gradients remain toward the river even during the high flow period. Recall that Figure 2 shows the overall pattern of groundwater flow is toward the river during the latter part of the snowmelt period in June. Thus stream flow changes cannot substantially affect groundwater levels. Therefore additional removal of water from the Fraser River and its tributaries planned for this Moffat Project would not substantially effect groundwater levels, public and private wells, or wetlands supported by groundwater discharge. Groundwater level changes along the stream margins would be equal to or less than the stream level changes</p>


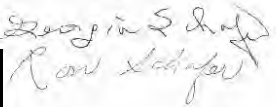
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>attributable to this Project. Overall impacts to groundwater in the valley would be negligible.</p> <p>Comment #1661-4 (ID 1787): <i>The air quality and other environmental issues will suffer greatly.</i></p> <p>Response #1661-4: The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare. A Corps' Section 404 Permit, if issued for one of the Moffat EIS alternatives, will require that construction activities conform to Colorado State Air Quality standards.</p> <p>Comment #1661-3 (ID 1786): <i>Using Co. 72, a narrow and busy canyon road, is a safety hazard. CDOT is saying that they do not think they can keep the road in good condition when they consider the amount of truck traffic that this project will cause. It is necessary to use residential roads to get to this site. These roads were not intended nor constructed for this type of traffic.</i></p> <p>Response #1661-3: Most of the roadways serving Gross Reservoir (e.g., SHs 72 and 93) are in good condition and are designed to handle large, heavy construction vehicles. However, Denver Water would improve other roads in the Project area to accommodate construction activities, if needed. Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for</p>


Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1661-5 (ID 1785): <i>We are told that your office needs 10,000 letters from citizens protesting this project before you will deny the permit. Consider this letter a plea from the 10,000 to 20,000 trees that will be cut down form this expansion. There are many other reasons to deny a permit for this project. We have listed just these few.</i></p> <p>Response #1661-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1662 Ronald and Georgia Schafer</p>	<div style="text-align: center;">  </div> <p>Feb. 16, 2010</p> <p>U.S. Army Corps of Engineers Attn: Scott Franklin 9307 S. Wadsworth Blvd. Littleton, Co.</p> <p>RE: Gross Dam Reservoir, Moffat Collection System Project.</p> <p>Dear Sir:</p> <p>We are writing to request a Hydrology Study of the fault line in the area of the Gross Dam Reservoir project.</p> <p>There has not been a study on this fault line but there were notes that the increase of pressure in this area from the weight of the new dam could cause tremors in 10 to 50 years.</p> <p>A perfectly good dam will be destroyed as the homes and lives in the wake of an earthquake.</p> <p>There has not been a study of the damage to aquifers and wells that could be effected by 4 to 6 years of blasting in this very area,</p> <p>Thank you for your time.</p> <p>Sincerely,</p> <p>Ronald & Georgia Schafer </p> <div style="background-color: black; width: 100px; height: 50px; margin-top: 10px;"></div>	<p>Comment #1662-1 (ID 1791):</p> <p><i>We are writing to request a Hydrology Study of the fault line in the area of the Gross Dam Reservoir project. There has not been a study on this fault line but there were notes that the increase of pressure in this area from the weight of the new dam could cause tremors in 10 to 50 years. A perfectly good dam will be destroyed as the homes and lives in the wake of an earthquake. There has not been a study of the damage to aquifers and wells that could be effected by 4 to 6 years of blasting in this very area, Thank you for your time.</i></p> <p>Response #1662-1:</p> <p>Section 4.3.1.1 in the DEIS states: "In summary, the proposed dam raise and expansion of Gross Reservoir may increase the potential for reservoir-induced seismicity, but not at substantial levels. Potential issues related to geologic resources will be addressed through geotechnical and seismic studies in the design and construction phases." Additionally, Table 4.20-1 states "Dam raise and expansion may slightly increase the potential for reservoir-induced seismicity." Detailed geotechnical and seismic studies would be conducted as part of the final design and construction phases of the Project.</p> <p>The Livingston Sheer Zone and Fault, the Rogers Fault, and the Copeland Fault are not mapped as potentially active and therefore unlikely to create earthquake activity near Gross Reservoir (Kirkham and Rogers 1981). Faults that have been identified in the vicinity of the dam have been deemed inactive so there is little chance that the activation of theses faults is possible.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1663 Fred Schroeder, Ed.D.</p>	<p>12/12/2009 16:27 [REDACTED] DR FRED SCHROEDER PAGE 01/01</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Mr. Franklin:</p> <p>As a full time resident of Grand County, I must express my concerns with the Moffat Firming project. They are:</p> <ol style="list-style-type: none"> 1. After reviewing your EIS, I am astounded that there is no recognition of the fact that Grand County's water will also be impacted by the Windy Gap firming project. Our ecosystem is intertwined. Whenever one part is affected, an impact is felt throughout the entire system. Your report ignores that connection. 2. Although you speak of conservation practices, it appears that you do not have the political will to enforce some meaningful regulations on your end users. For example, it is incredible that you provide low cost water for individuals, businesses (golf courses), and even governmental bodies to support lush vegetation in a semi-arid environment. 3. There must be a tighter coupling between the EIS and tough conservation practices. 4. It is well understood that there is a relationship between decreased Fraser River flows and the concomitant impact on the quality of the water pumped by the Northern Water Conservancy District through the Colorado Big Thompson project and thus, through Grand Lake. As the state's largest, and perhaps most beautiful, lake, there is legal protection for the Lake in Senate Document 80. The negative impact of high pump flows through Grand Lake have now been scientifically documented. We must respect the heritage handed to us in Grand Lake and do all possible to protect it. <p>In conclusion, at minimum your whole undertaking needs re-thinking. As it stands, it ignores the negative impact on our natural scenic beauty solely for the unsustainable thirst of plants and activities on the front range.</p> <p>I do not support the project as presented.</p> <p> Fred Schroeder, Ed.D. [REDACTED]</p> <p>DEC-12-2009 04:39PM From: [REDACTED] ID: TRI LAKES Page: 001 0:06</p>	<p>Comment #1663-1 (ID 1795): <i>As a full time resident of Grand County, I must express my concerns with the Moffat Firming project. They are: 1. After reviewing your EIS, I am astounded that there is no recognition of the fact that Grand County's water will also be impacted by the Windy Gap firming project. Our ecosystem is intertwined. Whenever one part is affected, an impact is felt throughout the entire system. Your report ignores that connection.</i></p> <p>Response #1663-1: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT System. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1663-3 (ID 1794): <i>Although you speak of conservation practices, it appears that you do not have the political will to enforce some meaningful regulations on your end users. For example,</i></p>


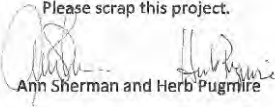

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>it is incredible that you provide low cost water for individuals, businesses (golf cams), and even governmental bodies to support lush vegetation in a semi-arid environment. 3. There must be a tighter coupling between the EIS and tough conservation practices.</i></p> <p>Response #1663-3: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area. Denver Water has an aggressive conservation program and has reduced water use by 20% over the last 10 years.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1663-4 (ID 1793): <i>It is well understood that there is a relationship between decreased Fraser River flows and the concomitant impact on the quality of the water pumped by the Northern Water Conservancy District through the Colorado Big Thompson project and thus, through Grand Lake. As the state's largest, and perhaps most beautiful, lake, there is legal protection for the Lake in Senate</i></p>




Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>Document 80. The negative impact or high pump flows though Grand Lake have now been scientifically documented. We must respect the heritage handed to us in Grand Lake and do all possible to protect it.</i></p> <p>Response #1663-4: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1663-2 (ID 1792): <i>In conclusion, at minimum your whole undertaking needs re-thinking. As it stands, it ignores the negative impact on our natural scenic beauty solely for the unsustainable thirst of plants and activities on the front range. I do not support the project as presented.</i></p> <p>Response #1663-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1665 Ann Sherman and Herb Pugmire</p>	<div style="text-align: right; margin-bottom: 10px;">  <p>January 6, 2010</p> </div> <p>Scott Franklin, Moffat EIS Project Manager,</p> <p>As residents of Coal Creek Canyon, we are very concerned about the proposed expansion of the Gross Dam Reservoir. The environmental impact of cutting down thousands of trees, blasting quarries, and hauling trucks up and down the canyon would be a disservice to our rural community and wilderness lifestyle, with an even greater impact falling on the wildlife in the area. Our road (HWY 72) cannot handle semis going up and down it all day. The impact on all of us who commute to work and school from our mountain community would also be devastating.</p> <p>Please scrap this project.</p> <div style="text-align: center;">  Ann Sherman and Herb Pugmire  </div>	<p>Comment #1665-1 (ID 1798): <i>As residents of Coal Creek Canyon, we are very concerned about the proposed expansion of the Gross Dam Reservoir. The environmental impact of cutting down thousands of trees, blasting quarries, and hauling trucks up and down the canyon would be, a disservice to our rural community and wilderness lifestyle, with an even greater impact falling on the wildlife in the area. Our road (HWY 72) cannot handle semis going up and down it all day. The impact on all of us who commute to work and school from our mountain community would also be devastating.</i></p> <p>Response #1665-1: Most of the roadways serving Gross Reservoir (e.g., SHs 72 and 93) are in good condition and are designed to handle large, heavy construction vehicles. However, Denver Water would improve other roads in the Project area to accommodate construction activities, if needed. Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1665-2 (ID 1797): <i>Please scrap this project.</i></p> <p>Response #1665-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1666 Wynne Simpson</p>	<p style="text-align: right;">February 17, 2010</p> <div style="text-align: center;">   </div> <p>US Army Corps of Engineers 9307 South Wadsworth Blvd. Littleton, CO. 80128-6901</p> <p>Dear Mr. Scott Franklin,</p> <p>As a neighbor of Gross Reservoir, I am writing AGAINST the expansion of the dam, project #2035, for the following reasons:</p> <ul style="list-style-type: none"> • Conservation efforts rather than water consumption by residents of the Denver area need to be aggressively promoted. For example, alternatives that require little water as Denver is a desert, rather than planting Kentucky Blue Grass. This is a temporary solution for our rapidly growing population. • Pollution from trucks, noise, light, workers, tree removal, traffic, etc. will heavily contribute to our growing atmospheric destruction. • Our western slope rivers will become even more depleted by adding the proposed 72,000 AF to Gross Reservoir. • Excavation of a quarry that has no plans for being reclaimed, built on the edge of the reservoir will lead to permanent and major damage. • The proposed five year process will place residents and recreational hikers/ bikers at a high risk of deadly traffic accidents in Coal Creek Canyon, Gross Dam road and Flagstaff mountain road. <p>Please put a halt to this project.</p> <p>Thank you,</p> <p style="text-align: center;"></p> <p>Wynne Simpson</p>	<p>Comment #1666-6 (ID 1805): <i>As a neighbor of Gross Reservoir, I am writing AGAINST the expansion of the dam, project #2035, for the following reasons:</i></p> <p>Response #1666-6: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1666-7 (ID 1804): <i>Conservation efforts rather than water consumption by residents of the Denver area need to be aggressively promoted. For example, alternatives that require little water as Denver is a desert, rather than planting Kentucky Blue Grass. This is a temporary solution for our rapidly growing population.</i></p> <p>Response #1666-7: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>


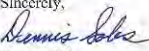
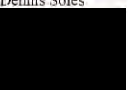
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1666-4 (ID 1803): <i>Pollution from trucks, noise, light, workers, tree removal, traffic, etc. will heavily contribute to our growing atmospheric destruction.</i></p> <p>Response #1666-4: Potential air quality impacts are discussed in DEIS Section 4.11. Noise impacts are discussed in DEIS Section 4.12 and visual impacts from light are discussed in Section 4.17.</p> <p>Comment #1666-1 (ID 1802): <i>Our western slope rivers will become even more depleted by adding the proposed 72,000 AF to Gross Reservoir.</i></p> <p>Response #1666-1: Under the proposed Moffat Project, additional diversions through the Moffat Tunnel would occur primarily during runoff months in May, June and July (see DEIS Table H-3.1). The environmental effects of existing diversions in combination with additional diversions due to the Moffat Project were evaluated and the associated environmental effects were generally determined to be minimal to moderate depending on the resource. Denver Water's Conceptual Mitigation Plan is included in FEIS Appendix M. Where required, mitigation will be prepared as part of a Section 404 Permit.</p> <p>Comment #1666-2 (ID 1801): <i>Excavation of a quarry that has no plans for being reclaimed, built on the edge of the reservoir will lead to permanent and major damage.</i></p> <p>Response #1666-2: As described in FEIS Section 2.3.2.1, mitigation for the quarry site includes a range of techniques, such as rock sculpting (shaping the exposed rock to mimic a natural rock face) and selective planting to break up the scale of the exposed area and soften the contrasts with adjacent</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>areas. The use of rock staining would also be considered, provided a determination by Denver Water that its application would not create any water quality concerns.</p> <p>An additional mitigation measure has been added to FEIS Section 5.7.7 to address reclamation of the quarry site. The proposed quarry site and any alternative quarry sites would be located on USFS and Denver Water land. Denver Water would work with the USFS to ensure appropriate revegetation of these sites based on site conditions.</p> <p>Comment #1666-3 (ID 1800): <i>The proposed five year process will place residents and recreational hikers/bikers at a high risk of deadly traffic accidents in Coal Creek Canyon, Gross Dam road and Flagstaff mountain road.</i></p> <p>Response #1666-3: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1666-5 (ID 1799): <i>Please put a halt to this project.</i></p> <p>Response #1666-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1667 Dennis Soles</p>	<p>Mr. Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>12-7-09</p>  <p>Mr. Franklin,</p> <p>Please accept my comments on the Moffat Fanning Project!</p> <p>Since the mitigation measures offered by Denver Water are so minimal the additional environmental enhancement points that Denver Water offers should be included in the Draft Environmental Impact Statement.</p> <p>The importance of flushing from the peak spring runoff and its positive effect on and importance to the health of the Fraser and Colorado Rivers must also be acknowledged and included in the draft EIS.</p> <p>A conservation first, diversion second policy needs to be adopted and implemented by Denver Water throughout its service area.</p> <p>The draft EIS fails to mention that the dewatered Fraser River will be pumped from Windy Gap to Lake Granby by the Northern Water Conservancy District through the Colorado Big Thompson Project and through Grand Lake. The additional depletion of the Fraser River will come in late spring and early summer. This is the time of the year when the Windy Gap Reservoir is pumping into the CBT project through Granby Reservoir. These are also the months when six wastewater treatment plants on the Fraser River are experiencing high discharge due to infiltration. Our ranch lands are also being flushed during this season, causing the highest influx of phosphorus carrying sediment to be washed into the Fraser and Colorado Rivers. By depleting the flow in the Fraser River the concentration of these nutrients will increase and be pumped directly from Windy Gap into the Three Lakes Region. Grand Lake is already experiencing high algae counts and diminishing water clarity. The draft EIS must acknowledge the negative impact these nutrient concentrations are and will be having on Colorado's largest natural lake.</p> <p>Denver Water's draft EIS fails to acknowledge the fact that Northern Water Conservancy District is also planning to dewater the upper Colorado River. The effects of both of these projects need to be addressed at the same time.</p> <p>Thank you for this opportunity to comment on the Moffat Fanning Project.</p> <p>Sincerely,  Dennis Soles </p>	<p>Comment #1667-1 (ID 1810): <i>Please accept my comments on the Moffat Fanning Project! Since the mitigation measures offered by Denver Water are so minimal the additional environmental enhancement points that Denver Water offers should be included in the Draft Environmental Impact Statement.</i></p> <p>Response #1667-1: The Corps will include specific mitigation measures that are enforceable through a Section 404 Permit, if issued. CDPHE will also include specific water quality mitigation measures that are enforceable through a Section 401 Certification. USFWS will include specific requirements to protect threatened and endangered species that are enforceable through a BO. In addition, Denver Water has entered into three agreements that would enhance the existing environment and provide additional protections: CRCA, LBD Cooperative Effort, and Fish and Wildlife Enhancement Plan, copies of which are provided in FEIS Appendix M. Each of these plans will be implemented through permanent agreements between the parties. The Corps will consider these agreements, along with all "reasonably foreseeable future actions" in its decision process regarding the proposed Moffat Project. These agreements are not intended to mitigate the impacts of the proposed Project; instead, the purpose is to improve existing conditions of aquatic environments in the Colorado River Basin should Gross Reservoir be enlarged.</p> <p>Comment #1667-2 (ID 1809): <i>The importance of flushing from the peak spring runoff and its positive effect on and importance to the health of the Fraser and Colorado Rivers must also be acknowledged and included in the draft EIS.</i></p> <p>Response #1667-2: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to</p>

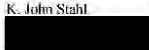
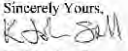
Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1667-3 (ID 1808): <i>A conservation first, diversion second policy needs to be adopted and implemented by Denver Water throughout its service area.</i></p> <p>Response #1667-3: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1667-4 (ID 1807): <i>The draft EIS fails to mention that the dewatered Fraser River will be pumped from Windy Gap to Lake Granby by the Northern Water Conservancy District through the Colorado Big Thompson Project and through Grand Lake. The additional depletion of the Fraser River will come in late spring and early summer. This is the time of the year when the Windy Gap Reservoir is pumping into the CBT project through Granby Reservoir. These are also the months when six wastewater treatment plants on the Fraser River are experiencing high discharge due to infiltration. Our ranch lands are also being flushed during this season, causing the highest influx of phosphorus carrying sediment to be washed into the Fraser and Colorado Rivers. By depleting the flow in the Fraser River the concentration of these nutrients will increase and be pumped directly from Windy Gap into the Three Lakes Region. Grand Lake is already experiencing high algae counts and diminishing water clarity. The draft EIS must acknowledge the negative impact these nutrient concentrations are and will be having on Colorado's largest natural lake.</i></p> <p>Response #1667-4: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Comment #1667-5 (ID 1806): <i>Denver Water's draft EIS fails to acknowledge the fact that Northern Water Conservancy District is also planning to dewater the upper Colorado River. The effects of both of these projects need to be addressed at the same time. Thank you for this opportunity to comment on the Moffat Firming Project.</i></p> <p>Response #1667-5: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
<p>Comment #1668 K. John Stahl</p>	<div style="text-align: right; margin-bottom: 10px;">  K. John Stahl Nov. 24, 2009 </div> <div style="margin-bottom: 10px;"> <p>Mr. Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin,</p> <p>The Moffat Firing Project EIS is flawed because it fails to consider the impacts of nutrient enriched water on Shadow Mountain reservoir and Grand Lake (Colorado's largest natural lake). As more water is diverted from the Fraser River, the concentrations of nutrients in the remaining water must increase. Collected at Windy Gap, this nutrient enriched water will be pumped into Granby reservoir, Shadow Mountain reservoir, and into and through Grand Lake as part of the Colorado-Big Thompson Project.</p> <p>The Northern Colorado Water Conservancy District has stated that nutrients are the major cause of water quality degradation, weed growth, algae growth, and algal toxins in Shadow Mountain reservoir, causing the subsequent degradation of Grand Lake. They have spent many years and hundreds of thousands of dollars studying this problem, and the Moffat Firing Project can only make this worse. Yet there is no mention of this predicable degradation in the Moffat Firing EIS, let alone any discussion of mitigation.</p> <p>Moffat Firing EIS also fails to take into account the removal of additional water from the Colorado River planned to be taken by the NCWCD Windy Gap Firing Project, even though it is well known that both projects are underway simultaneously. The Corps cannot claim to be unaware of these two projects both competing for the same limited resource. The impacts of both projects on the Colorado River minimum stream flows downstream of Windy Gap must be considered together; otherwise the Moffat Firing EIS process is either a joke or a ruse.</p> <p>Finally, the manipulation going on to prove that Moffat Firing will maintain minimum stream flows on the Fraser River is flawed also. Minimum stream flows must be calculated at that point where water is actually withdrawn from the Fraser River into the Moffat tunnel. Instead, the minimum flow is being calculated miles downstream after other streams have merged to bolster flow in the Fraser. Would you be satisfied if you bought a pound of hamburger at the supermarket, only to find out that it was actually much less than a pound: The market discounted their stated weight knowing that you would add a bun, relish, mustard, tomato and onions all of which they included in their calculation of your "hamburger weight". Please do not be fooled by the same sleight of hand in minimum stream flow calculations.</p> <div style="text-align: right;"> <p>Sincerely Yours,  K. John Stahl¹</p> </div> <p><small>¹ Although writing this as a resident of Grand County, Dr. Stahl is the President of the Board of Directors for the Three Lakes Water and Sanitation District, board member of the Greater Grand Lake Shoreline Association, member of the Three Lakes Watershed Association, a past board member of the Colorado Lake and Reservoir Management Association, and a Life Member of Trout Unlimited.</small></p> </div>	<p>Comment #1668-1 (ID 1813): <i>The Moffat Firing Project EIS is flawed because it fails to consider the impacts of nutrient enriched water on shadow Mountain reservoir and Grand Lake (Colorado's largest natural lake). As more water is diverted from the Fraser River, the concentrations of nutrients in the remaining water must increase. Collected at Windy Gap, this nutrient enriched water will be pumped into Granby reservoir, Shadow Mountain reservoir, and into and through Grand Lake as part of the Colorado-Big Thompson Project. The Northern Colorado Water Conservancy District has stated that nutrients are the major cause of water quality degradation, weed growth, algae growth, and algal toxins in Shadow Mountain reservoir, causing the subsequent degradation of Grand Lake. They have spent many years and hundreds of thousands of dollars studying this problem, and the Moffat Firing Project can only make this worse. Yet there is no mention of this predicable degradation in the Moffat Firing EIS, let alone any discussion of mitigation.</i></p> <p>Response #1668-1: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1668-2 (ID 1812): <i>Moffat Firing EIS also fails to take into account the removal of additional water from the a Colorado River planned to be taken by the NCWCD Windy Gap Firing Project, even though it is well known that both projects are underway simultaneously. The Corps cannot claim to be unaware of these two projects both competing for the same limited resource. The impacts of both projects on the Colorado River minimum stream flows downstream of Windy Gap must be considered together; otherwise the Moffat Firing EIS process is either a joke or a ruse.</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p>Response #1668-2: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1668-3 (ID 1811): <i>Finally, the manipulation going on to prove that Moffat Firming will maintain minimum stream flows on the Fraser River is flawed also. Minimum stream flows must be calculated at that point where water is actually withdrawn from the Fraser River into the Moffat tunnel. Instead, the minimum flow is being calculated miles downstream after other streams have merged to bolster flow in the Fraser. Would you be satisfied if you bought a pound of hamburger at the supermarket, only to find out that it was actually much less than a pound: The market discounted their stated weight knowing that you would add a bun, relish, mustard, tomato and onions all of which they included in their calculation of your</i></p>

Comment-Response Report (Public Part D)

Comment Information	Comment	Comments and Responses
		<p><i>"hamburger weight". Please do not be fooled by the same sleight of hand in minimum stream flow calculations.</i></p> <p>Response #1668-3: With the exception of Denver Water's Fraser River mainstem diversion, flow measurement structures are located directly below Denver Water's diversion points to verify minimum bypasses. Bypass flows for Denver Water's Fraser River mainstem diversion are measured approximately four miles downstream at the Fraser River near Winter Park gage. This is a condition included in Paragraph 3a of the Stipulations to the 1970 Amendatory Decision. Denver Water's current operations, which include measurement of the bypass flow requirement at that gage, are consistent with the Amendatory Decision. While this may result in less flow bypassed at the diversion structure than measured at the gage, this is an existing operation and not an impact of the proposed Moffat Project.</p>

Comment-Response Report (Public Part D)

References






- Apodaca, L.E. and J.B. Bails. 1999. Fraser River Watershed, Colorado – Assessment of Available Water-Quantity and Water-Quality Data Through Water Year 1997, USGS WRIR 98-4255.
- Brekke, Levi D. 2011. Addressing Climate Change in Long-Term Water Resources Planning and Management: User Needs for Improving Tools and Information. Bureau of Reclamation, Technical Services Center. Prepared for the U.S. Army Corps of Engineers, Washington, DC. January.
- Center of the American West. 1997. *Atlas of the New West*. A Project of the Center of the American West, University of Colorado. W. Riebsame, General Editor.
- Grand Environmental Services. 2009. Final Baseline Hydrology Report for Compensatory Wetland Mitigation Plan, Town of Winter Park Shops Expansion Project. USACE Wetland Permit SPK-2008-752. September 10.
- Hawkins, J. 2000. Appalachian Region Technology Transfer, Blasting Download Page. Accessed at: <http://www.arblast.osmre.gov> on 10/29/2010.
- Hydrosphere Resource Consultants, Inc. (Hydrosphere). 2003. Upper Colorado River Basin Study, Phase II, Final Report (UPCO). May 29. www.nwc.cog.co.us/docs/qg/upco%20final%20report.pdf.
- Kirkham, R.M. and W.P. Rogers. 1981. Earthquake Potential In Colorado, Colorado Geological Survey Bulletin 43, Department of Natural Resources, Denver, Colorado.
- Nichols, P., M. Murphy, and D. Kenney. 2001. Summary Report: Water and Growth in Colorado, A Review of Legal and Policy Issues, and Most Frequently Asked Questions About Water in Growth in Colorado. Natural Resources Law Center, University of Colorado School of Law.
- Riebsame, W.E. 1997. Western Land Use Trends and Policy: Implications for Water Resources. A Report to the Western Water Policy Review Advisory Commission.
- Siskind and Kopp (1987) in Hawkins, J. 2000. Impacts of Blasting on Domestic Water Wells, Workshop on Mountaintop Mining Effects on Groundwater May 9, 2000. Accessed at: <http://www.arblast.osmre.gov/downloads/Water%20Wells/Hawkins%20Blasting%20Wells%202000.pdf> on 10/29/2010.
- Stephens, D.B. and Associates. 2002. Comparative Study of Domestic Water Well Integrity to Coal Mine Blasting Summary Report. Prepared for Office of Surface Mining Reclamation and Enforcement, Pittsburgh, Pennsylvania, June 28, 2002. Accessed at: <http://www.arblast.osmre.gov/downloads/Water%20Wells/Stephens%20-%20Water%20Well%20Integrity.pdf> on 10/29/2010.
- United States Army Corps of Engineers (Corps). 1998. Final Environmental Impact Statement: Metropolitan Denver Water Supply EIS. Volume 1, p. 3-3. Omaha District.
- United States Army Corps of Engineers (Corps). 2007. Alternatives Screening Report, Moffat Collection System Project. U.S. Army Corps of Engineers Omaha District. August.
- Western Water Assessment. 2008. Climate Change in Colorado: A Synthesis to Support Water Resources Management and Adaptation. A report for the Colorado Water Conservation Board.
- Western Water Policy Review Advisory Commission. 1998. *Water in the West: The Challenge for the Next Century*. Prepared by A.D. Tarlock.

Comment-Response Report (Public Part D)

This page intentionally left blank.

Public Part E


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
PUBLIC PART E		
<p>Comment #1670 Ann Stricklin</p>	  <p>February 15, 2010</p> <p>Scott Franklin Mollat FTS Regulatory Office Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton CO 80128</p> <p>Dear Mr. Franklin:</p> <p>I am a citizen, tourist and property owner in Grand County. My family has owned property in Grand County for 100 years. A mile of the Fraser River runs directly through our property. The change of the Temperature and Water Flow through this very important river in the last few years is very alarming. Now, reading recent reports of how this river and other waterways will be impacted is absolutely devastating.</p> <p>Water that will be diverted to the Front Range and Denver area will put the Ecosystem, ground water supply, tourist and agriculture economy at great risk. This will negatively affect future generations. Tourists from all over the world come to enjoy and study nature and habitat. Preserving our ground water supply, wetlands and waterway system is essential to the survival of Grand County.</p> <p>On many Continents people are destroying Rain Forests, Polluting Rivers and devastating Natural Resources. We are seeing negative results to health and population and economy already from this reckless behavior. Americans have the education and science to know what needs to be done with Conservation Efforts to protect our land and environment. Every effort must be made by our citizens, leaders and Government to protect our lands for the future of America.</p> <p>Please address the concerns of the Grand County Stream Management Plan and NOTE omissions made in the Denver Water Draft EIS.</p> <p>Sincerely,  Ann Stricklin </p> 	<p>Comment #1670-4 (ID 1818): <i>I am a citizen, tourist and property owner in Grand County. My family has owned property in Grand County for 100 years. A mile of the Fraser River runs directly through our property. The change of the Temperature and Water Flow through this very important river in the last few years is very alarming. Now, reading recent reports of how this river and other waterways will be impacted is absolutely devastating.</i></p> <p>Response #1670-4: A more detailed evaluation of temperature analysis on the Fraser River and the Colorado River (between the Fraser River and the Blue River) was performed for the Final Environmental Impact Statement (FEIS) (see Sections 4.6.2 and 5.2).</p> <p>Comment #1670-3 (ID 1817): <i>Water that will be diverted to the Front Range and Denver area will put the Ecosystem, ground water supply, tourist and agriculture economy at great risk. This will negatively affect future generations. Tourists from all over the world come to enjoy and study nature and habitat. Preserving our ground water supply, wetlands and waterway system is essential to the survival of Grand County.</i></p> <p>Response #1670-3: The socioeconomic impacts in Grand County are driven in part by the conclusions about impacts upon other resources (recreation, visual resources, surface water, etc.) and the resulting impacts upon overall tourism and economic activities that occur in the county. The analysis of socioeconomic impacts to Grand County were reviewed and expanded as appropriate in FEIS Section 5.19 to revise or support the socioeconomic conclusions.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Comment #1670-2 (ID 1816): <i>On many Continents people are destroying Rain Forests, Polluting Rivers and devastating Natural Resources. We are seeing negative results to health and population and economy already from this reckless behavior. Americans have the education and science to know what needs to be done with Conservation Efforts to protect our land and environment. Every effort must be made by our citizens, leaders and Government to protect our lands for the future of America.</i></p> <p>Response #1670-2: A summary of conservation measures implemented by Board of Water Commissioners (Denver Water) is provided in Draft Environmental Impact Statement (DEIS) and FEIS Table 1-2.</p> <p>Comment #1670-1 (ID 1815): <i>Please address the concerns of the Grand County Stream Management Plan and NOTE omissions made in the Denver Water Draft EIS.</i></p> <p>Response #1670-1: The Grand County Stream Management Plan (GCSMP) has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), Physical Habitat Simulation (PHABSIM) data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1671 Mark Tallman, Doctoral Fellow</p>	<div style="text-align: center;">  </div> <p>January 30, 2010</p> <p>Mr. Franklin:</p> <p>As a Coal Creek Canyon area resident, I wish to express my disapproval of the proposed Gross Dam Reservoir expansion. I've perused Denver Water's future demand projections, as well as the DEIS, and I cannot find any indication that this project is much more than a locally painful short term fix for a massively complex long term problem. I do not get a sense that Denver Water or the municipal governments of the suburban Front Range have seriously considered conservation as a viable short or medium term substitute for the apparently endless expansion of supply, and yet other cities have succeeded at larger scale conservation measures where Denver Water, municipal governments, and the Corp. of Engineers appear to have failed in this case.</p> <p>I am aware that Denver Water plans to use conservation measures to accommodate half its projected shortfall by 2030, and this would be a positive step if I believed for more than thirty credulous seconds that Denver Water will meet its conservation targets. However, I strongly suspect that when push comes to shove in the current local political climate, conservation will take a back seat to expansion, and in a couple short decades we will once again be asked to approve yet another expansion, and if not us, then other communities up and down the Front Range foothills will be strong-armed to provide water to the suburban Front Range.</p> <p>My own Coal Creek Canyon area 26 acre parcel is zoned agricultural, and yet we cannot even have an external spigot to water a garden, raise non-native crops, or landscape lest we deplete the aquifer that feeds our well. In the meantime, we are "asked" to provide tens of thousands of homeowners and commercial property developers in the suburbs the surplus necessary for them to happily water their ornamental shrubbery and ostentatious non-native species landscaping with water from the rivers, creeks, and artificial reservoirs of the foothills, and we suffer in our agricultural zoning so that a significant minority of high plains farmers can continue to irrigate for types of intensive high-yield production that is simply unsupportable by a high plains geography better suited to lower-yield practices.</p> <p>Forgive my skepticism, but I have my doubts that the home owner's associations and commercial organizations of Arvada, or the various farm and ranch lobbies of the high plains, will gladly meet future requests for conservation measures when they can choose instead to pressure for further expansions. Nor have I heard of any serious attempt to balance supply and demand pressures through an agricultural water buy-back option to allow end-users in the Suburban Front Range to buy supply from some of the high plains farmers and ranchers who as I understand it account for a substantial percentage of Colorado's consumption, and who vociferously demand that water be artificially diverted to the plains to</p>	<p>Comment #1671-7 (ID 1825): <i>As a Coal Creek Canyon area resident, I wish to express my disapproval of the proposed Gross Dam Reservoir expansion.</i></p> <p>Response #1671-7: Prior to making decisions on the proposed Moffat Collection System Project (Moffat Project or Project), the U.S. Army Corps of Engineers (Corps) will evaluate and consider the Moffat Project's environmental effects according to the National Environmental Policy Act of 1969, as amended (NEPA).</p> <p>Comment #1671-6 (ID 1824): <i>I've perused Denver Water's future demand projections, as well as the DEIS, and I cannot find any indication that this project is much more than a locally painful short term fix for a massively complex long term problem. I do not get a sense that Denver Water or the municipal governments of the suburban Front Range have seriously considered conservation as a viable short or medium term substitute for the apparently endless expansion of supply, and yet other cities have succeeded at larger scale conservation measures where Denver Water, municipal governments, and the Corp. of Engineers appear to have failed in this case. I am aware that Denver Water plans to use conservation measures to accommodate half its projected shortfall by 2030, and this would be a positive step if I believed for more than thirty credulous seconds that Denver Water will meet its conservation targets. However, I strongly suspect that when push comes to shove in the current local political climate, conservation will take a back seat to expansion, and in a couple short decades we will once again be asked to approve yet another expansion, and if not us, then other communities up and down the Front Range foothills will be strong-armed to provide water to the suburban Front Range. My own Coal Creek Canyon area 26 acre parcel is zoned agricultural, and yet we</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>accommodate high yield farming where it had no geographic business in the first place.</p> <p>In addition, even if I were not concerned about the impact to local ecosystems and aquifers, the apparent lack of truly long-term or holistic sustainability planning, the unwillingness to accept market solutions or introduce true market prices to Suburban Front Range end-users, or the carte blanche for endless and unsustainable suburban development that this expansion represents, I would still be strongly opposed to the increased traffic, noise, and other irritations this project will bring literally to my front door.</p> <p>I am told that most of the construction materials and equipment for this expansion will have to be trucked up Highway 72, about 75 feet from my doorstep. As I understand it, the option to reduce noise and congestion on Highway 72 by producing some construction materials on site, will involve dynamiting and other industrial construction processes that may likewise be disturbing to local wildlife, livestock, and residents, and for which I've seen no projections as to the seismic impacts which in the worst case scenario could send tons of boulders and scree down on any number of local properties including my own. For my part, I don't think I'm alone among Coal Creek Canyon residents when I say that I'm already less than thrilled to be conserving water on my agriculturally zoned land so that suburban Front Range residents can have the beautiful lawns and green highway frontages that are so clearly part of the American way regardless of geographic sustainability. However, if this construction project results in a rockslide on my property or the property of any other local resident, you can bet more forceful civic action will be taken than a letter of concern.</p> <p>In addition, Highway 72, already over-congested during peak hours, will likely be over-congested at all hours during certain phases of the expansion project. Local services may be overtaxed, property values may be affected, local businesses and agricultural properties may suffer commercially, and at the very least many area residents will be seriously inconvenienced. And to what ultimate end? Expansion is pointless and short-sighted when longer-term and more environmentally sustainable solutions are available. As you may know, Santa Fe has for some time been facing a water supply squeeze, and perhaps because of this I'm told they've managed in the last ten years to decrease the per-capita water consumption in that city from 168 gallons per day to 101 gallons per day. I'm neither a statistician nor an engineer, but it seems like common sense to assume that if another western city in an even more water-strapped area of the country can cut their consumption 39% in about ten years despite substantial population growth, there's little reason to assume Arvada and the Front Range Urban Corridor in general, cannot do the same provided an incentive structure that puts the true costs and negative externalities of consumption and supply- expansions on the end users, instead of on me and my neighbors.</p>	<p><i>cannot even have an external spigot to water a garden, raise non-native crops, or landscape lest we deplete the aquifer that feeds our well. In the meantime, we are "asked" to provide tens of thousands of homeowners and commercial property developers in the suburbs the surplus necessary for them to happily water their ornamental shrubbery and ostentatious non-native species landscaping with water from the rivers, creeks, and artificial reservoirs of the Foothills, and we suffer in our agricultural zoning so that a significant minority of high plains farmers can continue to irrigate for types of intensive high-yield production that is simply unsupportable by a high plains geography better suited to lower-yield practices. Forgive my skepticism, but I have my doubts that the home owner's associations and commercial organizations of Arvada, or the various farm and ranch lobbies of the high plains, will gladly meet future requests for conservation measures when they can choose instead to pressure for further expansions.</i></p> <p>Response #1671-6: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 acre-feet per year (AF/yr) of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>If, on the other hand, you or your representatives can explain to me how this project will <i>not</i> inconvenience me and my neighbors primarily for the sake of property developers in the suburban Front Range, how the construction will <i>not</i> inconvenience anyone in the Coal Creek Canyon area particularly those whose properties border Highway 72, how the construction will <i>not</i> cause problematic environmental effects, or how the expansion does <i>not</i> serve to distort the incentive structures that must emerge if per capita demand is truly to be decreased enough to prevent another expansion proposal in 20-30 years, then I'd be glad to change my tune.</p> <p>Sincerely,</p>  <p>Mark Tallman Doctoral Fellow [Redacted] Coal Creek Canyon area resident [Redacted]</p>	<p>all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22 percent (%) by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought. Arvada submitted a conservation plan to the State of Colorado and it was approved in September of 2012.</p> <p>Comment #1671-5 (ID 1823): <i>Nor have I heard of any serious attempt to balance supply and demand pressures through an agricultural water buy-back option to allow end-users in the Suburban Front Range to buy supply from some of the high plains farmers and ranchers who as I understand it account for a substantial percentage of Colorado's consumption, and who vociferously demand that water be artificially diverted to the plains to accommodate high yield farming where it had no geographic business in the first place.</i></p> <p>Response #1671-5: The Corps conducted a detailed alternative screening process for the Moffat Project that considered over 300 water sources and infrastructure structural components (Alternatives Screening Report, Corps 2007) including agricultural water transfer, municipal reuse, and various storage locations. A complete listing can be found in Appendix B and a description of the screening process can be found in DEIS Section 2.1.</p> <p>Alternative 13a represents a reasonable combination of water supplies derived from agricultural water rights</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>transfers and Denver Water's Moffat Collection System. There are many factors, in addition to cost, which affect the amount of water that could be provided by agricultural water rights transfers. The availability of gravel pit storage and agricultural water rights are two key limiting factors that affect the amount of water that could potentially be derived from this supply. Generating 3,000 AF/yr of firm yield from agricultural supplies would require that almost 25% of the remaining uncommitted shares in four major ditch systems be purchased. The ability to purchase a significant portion of the shares in these ditches is uncertain because of the competitive market for agricultural water rights and there is no guarantee there would be an adequate number of willing sellers under these ditch systems. The operations and firm yield associated with this supply depend on how many ditch systems are involved and the locations of these ditches in relation to the gravel pit storage. For example, the ability to divert transferred agricultural water to storage in gravel pits could be affected by available exchange potential if purchases are required from multiple ditch systems that are dispersed along the South Platte. The amount of gravel pit storage available is limited and the market for it is also competitive. If more agricultural water is used in this alternative, more gravel pit storage would be needed to firm that supply and more treatment capacity would likely be required. There could also be significant costs and land requirements associated with brine disposal depending on required levels and types of treatment. In addition, there would be considerable pumping and treatment costs, which are directly related to the amount of water derived from agricultural supplies.</p> <p>Alternative 13a could potentially be reconfigured to use more agricultural supply and not exceed a relative cost threshold of 5.0. However, for the purposes of including an alternative that includes agricultural water rights in combination with Moffat Collection System</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>supplies, the current configuration of Alternative 13a is reasonable, considering the cited uncertainties regarding the availability and location of water rights and gravel pits and the complexities of treating the lesser quality water and disposing of the treatment residuals.</p> <p>Comment #1671-4 (ID 1822): <i>In addition, even if I were not concerned about the impact to local ecosystems and aquifers, the apparent lack of truly long-term or holistic sustainability planning, the unwillingness to accept market solutions or introduce true market prices to Suburban Front Range end-users, or the carte blanche for endless and unsustainable suburban development that this expansion represents, I would still be strongly opposed to the increased traffic, noise, and other irritations this project will bring literally to my front door.</i></p> <p>Response #1671-4: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1671-3 (ID 1821): <i>I am told that most of the construction materials and equipment for this expansion will have to be trucked up Highway 72, about 75 feet from my doorstep. As I understand it, the option to reduce noise and congestion on Highway 72 by producing some construction materials on site, will involve dynamiting and other industrial construction processes that may likewise be disturbing to local wildlife, livestock, and residents, and for which I've seen no projections as to the seismic impacts which in the worst case scenario could send tons of boulders and scree down on any number of local properties including my own. For my part, I don't think I'm alone among Coal Creek Canyon residents when I say that I'm already less than thrilled to be conserving water on my agriculturally zoned land</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>so that suburban Front Range residents can have the beautiful lawns and green highway frontages that are so clearly part of the American way regardless of geographic sustainability. However, if this construction project results in a rockslide on my property or the property of any other local resident, you can bet more forceful civic action will be taken than a letter of concern. In addition, Highway 72, already over-congested during peak hours, will likely be over-congested at all hours during certain phases of the expansion project. Local services may be overtaxed, property values may be affected, local businesses and agricultural properties may suffer commercially, and at the very least many area residents will be seriously inconvenienced. And to what ultimate end?</i></p> <p>Response #1671-3: Denver Water met with the Colorado Department of Transportation (CDOT) to discuss the potential increase in truck traffic on State Highway (SH) 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns. An expanded analysis of impacts to communities surrounding Gross Reservoir is included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Intermittent blasting by explosives such as Ammonium Nitrate Fuel Oil would occur during the early phases of construction as aggregate supplies are needed for dam construction. Blasting would be designed specifically for Gross Dam and would create ground vibrations and land motion appropriate for the dam structure to sustain. A seismograph would be used to monitor the blasting operations to ensure that acceleration thresholds are not exceeded. Denver</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Water plans to implement confined charge blasting for dam construction to minimize noise. The noise levels described in the Environmental Impact Statement (EIS) are predicted at distances of less than 50 feet from the source and would be temporary and remote. Sound travels omni-directionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 decibels (dB).</p> <p>Comment #1671-2 (ID 1820): <i>Expansion is pointless and short-sighted when longer-term and more environmentally sustainable solutions are available. As you may know, Santa Fe has for some time been facing a water supply squeeze, and perhaps because of this I'm told they've managed in the last ten years to decrease the per-capita water consumption in that city from 168 gallons per day to 101 gallons per day. I'm neither a statistician nor an engineer, but it seems like common sense to assume that if another western city in an even more water-strapped area of the country can cut their consumption 39% in about ten years despite substantial population growth, there's little reason to assume Arvada and the Front Range Urban Corridor in general, cannot do the same provided an incentive structure that puts the true costs and negative externalities of consumption and supply- expansions on the end users, instead of on me and my neighbors.</i></p> <p>Response #1671-2: All Denver Water Customers are metered. Denver Water implements a Block Census Rate Structure (i.e., the more one uses, the more one pays). Rates are based on a cost of service analysis comprised of customer classes (e.g., residential, industrial, commercial, and institutional) and by whether customers live inside or outside the City and County of Denver. Costs are recovered from each customer</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>class in proportion to the cost of providing the service to each class. Rates consist of a consumption charge per 1,000 gallons consumed a fixed, per account service charge.</p> <p>Denver Water implements an aggressive rebate program and rewards customers for installing low-flow fixtures and rain gages. In the last three years 38,627 residential rebates have been processed by Denver Water, which amounts to 15% of Denver Water's residential customers participating in rebate programs since 2007. Through these rebates, the new high-efficiency products help save about 960 acre-feet (AF) of water, roughly the amount used by 2,400 homes in a year. Additionally, Denver Water has launched a pilot program with Habitat for Humanity by buying inefficient toilets (more than 1.6 gallons per flush) from their Home Improvement Outlet stores as an attempt to save over 40 AF/yr. Denver Water also offers free water-use audits and incentive contracts to commercial, industrial, and institutional customers.</p> <p>Forecasting water demand is primarily a function of two variables: future demographic growth (population, households, income) within the Combined Service Area and the varying rates of water usage for those demographic groupings. The usage relationships emerge from detailed analysis of historical water usage patterns. In 2010, Denver Water updated their water demand projections based on the most recent population and demographic projections available from the Denver Regional Council of Governments (DRCOG), Colorado State Demographer's Office and other relevant sources of demographic data. The Corps has independently evaluated the updated projections and found them reasonable for use in the FEIS. It is not prudent to compare the water planning and management methods of a city or community, such as Santa Fe, with distinctly dissimilar demographic conditions and different operating system.</p>

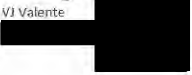

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Comment #1671-1 (ID 1819): <i>If, on the other hand, you or your representatives can explain to me how this project will not inconvenience me and my neighbors primarily for the sake of property developers in the suburban Front Range, how the construction will not inconvenience anyone in the Coal Creek Canyon area particularly those whose properties border Highway 72, how the construction will not cause problematic environmental effects, or how the expansion does not serve to distort the incentive structures that must emerge if per capita demand is truly to be decreased enough to prevent another expansion proposal in 20-30 years, then I'd be glad to change my tune.</i></p> <p>Response #1671-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on County Road (CR) 77S, SH 72, SH 93, SH 128, U.S. Highway (US) 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and SH 2050 Road. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During the peak construction period, about 35 trucks could deliver material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p> <p>Denver Water met with CDOT to discuss the potential</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		increase in truck traffic on SH 72 during construction as well as options for managing and mitigating the Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic.

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1672 VJ Valente</p>	<p>Dear x <i>Scott Franklin</i></p> <p>As citizens of Grand County we really do appreciate a chance to have our voices heard. We do understand this subject is a tough issue to balance. On one hand, you have a booming metropolis with the need to supply constituents with an adequate and reliable source of clean dependable water. On the other hand, you have the health of a totally different ecosystem. There is no doubt that 60 plus years of water diversions has irrevocably changed the local climate including the disappearance of wetlands. Grand County has had its own boom of sorts going on. In 2000, there were approximately 8,000 year round residents and we are now close to 10,000. During events county-wide, we can see a surge of 10,000-40,000 people. The Front Range has been expanding in our direction and our finite resources are being sucked away so fast we won't be able to supply our local population with that adequate and reliable source of dependable water. The lack of stream-flows can greatly reduce our living conditions and hamper our growth. Hot Sulphur Springs had to recently raise water rates in order to help patch and repair our system leaving potentially the only recourse for the few businesses in town to close their doors. We pay nearly \$1,200 yearly for residential water and sewer. We, the residents, saw first-hand how poorly planned projects can wreck our water systems. We have had many a boil ordinance for our water, one for nearly four months. This is reality. To say you are lacking resources is understandable, yet we have been here long before the trans-mountain diversions. Are we going to be one of those towns that will close its doors due to lack of water? We've already lost most of our trees; (nearly 1,000,000 acres) are we going to lose our river next?</p> <p>What sacrifices has the front-range had to endure? Mandatory watering is a start but we mountain-folk do head to the city occasionally and it's extremely disheartening to see sprinklers on mid-day and water running down the gutters while we have to so conserve our local resource. That is reality also. It is one that can and should be enforced otherwise it's a "I have more money so I can waste it" and that's immoral. Large projects and subdivisions are planned and advertise green building and forethought. Yet the only green is on the golf course and the padded wallets of the developers. We have seen this up-close and personal with the Shore-Fox subdivision which polluted the Colorado River with their poorly planned and monitored "retention ponds." Their lack of care towards their downstream neighbors is indicative of things to come. Last and most disturbing, is the fact that the Moffat Fanning project seemed to have no notion of the Windy-Gap fanning project being proposed in the same drainage by the Northern Colorado Water Conservancy District. It would seem that major water diversion entities would be at least a little bit informed of each other's projects, let alone be at the same table. Our government is starting to scare us when two large water regulators have no communication between them. What are the cumulative impacts of these two projects when so much is at stake? It's the people of Colorado's water, first and foremost. We don't grow it, it's given to us by God and we as good people share it. Yet to have it stolen from us is just plain wrong. Again we ask that you look into a more conservative approach to a finite resource that would benefit us all during the present and a long time into the future.</p> <p>Thank you <i>VJ Valente</i></p> <p>VJ Valente </p> 	<p>Comment #1672-5 (ID 1830): <i>As citizens of Grand County we really do appreciate a chance to have our voices heard. We do understand this subject is a tough issue to balance. On one hand, you have a booming metropolis with the need to supply constituents with an adequate and reliable source of clean dependable water. On the other hand, you have the health of a totally different ecosystem. There is no doubt that 60 plus years of water diversions has irrevocably changed the local climate including the disappearance of wetlands. Grand County has had its own boom of sorts going on. In 2000, there were approximately 8,000 year round residents and we are now close to 10,000. During events county-wide, we can see a surge of 10,000-40,000 people. The Front Range has been expanding in our direction and our finite resources are being sucked away so fast we won't be able to supply our local population with that adequate and reliable source of dependable water.</i></p> <p>Response #1672-5: The Corps notes the comment.</p> <p>Comment #1672-4 (ID 1829): <i>The lack of stream-flows can greatly reduce our living conditions and hamper our growth. Hot Sulphur Springs had to recently raise water rates in order to help patch and repair our system leaving potentially the only recourse for the few businesses in town to close their doors. We pay nearly \$1,200 yearly for residential water and sewer. We, the residents, saw first-hand how poorly planned projects can wreck our water systems. We have had many a boil ordinance for our water, one for nearly four months. This is reality. To say you are lacking resources is understandable, yet we have been here long before the trans-mountain diversions. Are we going to be one of those towns that will close its doors due to lack of water? We've already lost most of our trees; (nearly 1,000,000 acres) are we</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>going to lose our river next?</i></p> <p>Response #1672-4: The socioeconomic impact analysis is based, in part, on the analysis and conclusions of several other resources, including surface water, which also addresses water quality issues. FEIS Section 5.1 describes the changes in flows for each affected river section, while also addressing the timing of flow changes and the anticipated frequency of flow changes. A summary of flow changes can be found in Appendix H and a summary of surface water impacts can be found in Tables 5.22-1 and 5.22-2. FEIS Section 5.19 describes the Project impacts to local communities resulting from those river and stream flow changes. FEIS Section 4.6.19 addresses total environmental impacts, which include the effects of past, present and reasonably foreseeable future actions (RFFAs) as well as the Moffat Project.</p> <p>Comment #1672-3 (ID 1828): <i>What sacrifices has the front-range had to endure? Mandatory watering is a start but we mountain-folk do head to the city occasionally and it's extremely disheartening to see sprinklers on mid-day and water running down the gutters while we have to so conserve our local resource. That is reality also. It is one that can and should be enforced otherwise it's a - "I have more money so I can waste it" and that's immoral. Large projects and subdivisions are planned and advertise green building and forethought. Yet the only green is on the golf course and the padded wallets of the developers. We have seen this up-close and personal with the Shore-Fox subdivision which polluted the Colorado River with their poorly planned and monitored "retention ponds." Their lack of care towards their downstream neighbors is indicative of things to come.</i></p>

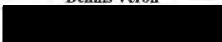

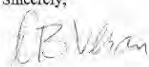
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1672-3: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1672-2 (ID 1827): <i>Last and most disturbing, is the fact that the Moffat Firming project seemed to have no notion of the Windy- Gap firming project being proposed in the same drainage by the Northern Colorado Water Conservancy District. It would seem that major water diversion entities would be at least a little bit informed of each other's projects, let alone be at the same table. Our government is starting to scare us when two large water regulators have no communication between them. What are the cumulative impacts of these two projects when so much is at stake? It's the people of Colorado's water, first and foremost. We don't grow it, it's given to us by God and we as good people share it. Yet to have it stolen from us is just plain wrong.</i></p> <p>Response #1672-2: The DEIS includes the Windy Gap Firming Project (WGFP) as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of Front Range entities, most</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>notably withdrawals from the Fraser River watershed, the Colorado-Big Thompson (C-BT) Project, and the Windy Gap Project.” Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1672-1 (ID 1826): <i>Again we ask that you look into a more conservative approach to a finite resource that would benefit us all during the present and a long time into the future.</i></p> <p>Response #1672-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project’s environmental effects according to NEPA.</p>


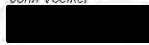

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1673 Dennis Veron</p>	<div style="text-align: center;"> <p>Dennis Veron</p>   </div> <p>February 16, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Colorado 80128</p> <p>Re: Moffat Firming Project and Windy Gap Firming Project</p> <p>Dear Mr. Franklin,</p> <p>I am asking that the two firming projects listed above not be approved. We are dealing with a scarce resource. When dealing with scarcity, there should be prioritization. It is said that 50% of the Fraser Valley waters diverted to the Front Range is used to water lawns. The environment supported by the Fraser River waters should take priority over Front Range lawns – especially when a 10% conservation effort by Denver Water could more than satisfy the additional needs for water that they are requesting.</p> <p>The growth of the Front Range population demands more water. However, it appears that aggressive conservation programs could satisfy those needs without sacrificing the environments of the Fraser Valley and the Grand Valley. Choices involve tradeoffs. If the Front Range chooses to grow, then the Front Range should develop ways to satisfy their water needs without destroying the mountain environments that we all enjoy so much.</p> <p>Finally, if the two firming projects are approved, then it is discovered that the mountain environments are suffering, it will be difficult to reverse that approval. How often are decisions such as these reversed after a period of time? Even if those decisions were reversed, it may be too late. The damage may be permanent.</p> <p>Sincerely,</p>  <p>cc: Larry Svoboda Director, NEPA Compliance and Review Program</p>	<p>Comment #1673-3 (ID 1833): <i>I am asking that the two firming projects listed above [Re: Moffat Firming Project and Windy Gap Firming Project] not be approved. We are dealing with a scarce resource. When dealing with scarcity, there should be prioritization.</i></p> <p>Response #1673-3: The Corps notes the comment.</p> <p>Comment #1673-2 (ID 1832): <i>It is said that 50% of the Fraser Valley waters diverted to the Front Range is used to water lawns. The environment supported by the Fraser River waters should take priority over Front Range lawns - especially when a 10% conservation effort by Denver Water could more than satisfy the additional needs for water that they are requesting. The growth of the Front Range population demands more water. However, it appears that aggressive conservation programs could satisfy those needs without sacrificing the environments of the Fraser Valley and the Grand Valley. Choices involve tradeoffs. If the Front Range chooses to grow, then the Front Range should develop ways to satisfy their water needs without destroying the mountain environments that we all enjoy so much.</i></p> <p>Response #1673-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Comment #1673-1 (ID 1831): <i>Finally, if the two firming projects are approved, then it is discovered that the mountain environments are suffering, it will be difficult to reverse that approval. How often are decisions such as these reversed after a period of time? Even if those decisions were reversed, it may be too late. The damage may be permanent.</i></p> <p>Response #1673-1: Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p>

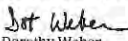
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1674 John Voelker</p>	<p style="text-align: right;">January 27, 2010</p> <p style="text-align: center;">   </p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Sir:</p> <p>I have lived in the Fraser Valley since 1996. During this time I have seen the amount of sediment increase. are a problem and with more diversion this is going to get much worse.</p> <p>Environmental flow needs are currently unknown for the vast majority of freshwater and estuarine ecosystems. Scientifically credible methodologies quantify the variable – not just minimum – flows needed for each water body by explicitly linking environmental flows to specific ecological functions and social values. Recent advances enable rapid, region-wide, scientifically credible environmental flow assessments. <i>Why was Denver Water not required to address environmental flow needs?</i></p> <p>Environmental flow assessment and management should be a basic requirement of Integrated Water Resource Management (IWRM); environmental impact assessment (EIA); strategic environmental assessment (SEA); infrastructure and industrial development and certification; and land-use, water-use, and energy-production strategies. <i>Why is environmental flow management not included in Denver Water's planning?</i></p> <p>Consistent integration of environmental flows into land and water management requires laws, regulations, policies and programs that: (1) recognize environmental flows as integral to sustainable water management, (2) establish precautionary limits on allowable depletions and alterations of natural flow, (3) treat ground water and surface water as a single hydrologic resource, and (4) maintain environmental flows across political boundaries. <i>The Corps has an opportunity to put this agenda item into action by holding Denver Water to these standards.</i></p> <p>Expressly limit the depletion and alteration of natural water flows according to physical and legal availability, and accounting for environmental flow needs. Where these needs are uncertain, apply the precautionary principle and base flow standards on best available knowledge. Where flows are already highly altered, utilize management strategies, including water trading, conservation, floodplain restoration, and dam re-operation, to restore environmental flows to appropriate levels. <i>Flows on the Fraser and Colorado Rivers are already highly altered and need the most stringent management standards.</i></p> <p>Your review of the Moffat Firing Project is critical to the future of the Fraser and Colorado Rivers, their tributaries and the residents of Grand County. Please require Denver Water to address environmental flows and adaptive management in their EIS.</p> <p>Please review this carefully;</p> <p>Sincerely,</p> <p>John Voelker (Also known John the old' guy)</p> <p style="text-align: center;"></p>	<p>Comment #1674-1 (ID 1834): <i>I have lived in the Fraser Valley since 1996. During this time I have seen the amount of sediment increase. are a problem and with more diversion this is going to get much worse. Environmental flow needs are currently unknown for the vast majority of freshwater and estuarine ecosystems. Scientifically credible methodologies quantify the variable - not just minimum - flows needed for each water body by explicitly linking environmental flows to specific ecological functions and social values. Recent advances enable rapid, region-wide, scientifically credible environmental flow assessments. Why was Denver Water not required to address environmental flow needs? Environmental flow assessment and management should be a basic requirement of Integrated Water Resource Management (IWRM); environmental impact assessment (EIA); strategic environmental assessment (SEA); infrastructure and industrial development and certification; and land-use, water-use, and energy-production strategies. Why is environmental flow management not included in Denver Water's planning? Consistent integration of environmental flows into land and water management requires laws, regulations, policies and programs that: (1) recognize environmental flows as integral to sustainable water management, (2) establish precautionary limits on allowable depletions and alterations of natural flow, (3) treat ground water and surface wafer as a single hydrologic resource, and (4) maintain environmental flows across political boundaries. The Corps has an opportunity to put this agenda item into action by holding Denver Water to these standards. Expressly limit the depletion and alteration of natural water flows according to physical and legal availability, and accounting for environmental flow needs. Where these needs are uncertain, apply the precautionary principle and base flow standards on best available knowledge. Where flows are already highly altered, utilize management strategies, including water trading,</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>conservation, floodplain restoration, and dam re-operation, to restore environmental flows to appropriate levels. Flows on the Fraser and Colorado Rivers are already highly altered and need the most stringent management standards. Your review of the Moffat FIRMing Project is critical to the future of the Fraser and Colorado Rivers, their tributaries and the residents of Grand County. Please require Denver Wafer to address environmental flows and adaptive management in their EIS.</i></p> <p>Response #1674-1: FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate conceptual mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required, including adaptive management for mitigation.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1675 Dorothy Weber</p>	<p>12/13/2009 11:53 [REDACTED] DR FRED SO RIEDER PAGE 01/01</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 Wadsworth Blvd. Littleton, CO 80128</p> <p>Mr. Franklin:</p> <p>I am NOT in support of the Moffat Firing Project as depicted in the EIS.</p> <p>While I can appreciate the growth in the Denver metropolitan area, it must be carefully monitored and developed and take into consideration all the resources necessary to sustain such growth. In a semi-arid climate, water sources are especially critical. They require sound stewardship. I do not believe that the EIS reflects such care and concern.</p> <p>The following points state my issues:</p> <ol style="list-style-type: none"> 1. Mitigation measures must be clearly stated. The impact on the Fraser River will be substantial. The enhancement points that Denver Water is offering must become part of the EIS. 2. Conservation measures must be clearly communicated and enforced. Front Range communities can mandate native plantings, charge more for watering lawns and filling pools, and educate the public about water issues. 3. The Moffat Firing Project EIS makes no mention of the Windy Gap Firing Project. While the agencies exist independently, nature does not. Grand County and its ecosystem will sorely impacted by both. They must be studied and considered together. 4. The draft EIS is written as if the seasons have little impact on the project. Spring high flows that come with snowmelt flush sediment and configure the streambed. Periodic high flows must be a part of mitigation and clearly stated in the EIS. 5. The impact on Grand Lake is ignored. The Moffat Firing Project in conjunction with the CBT project will send increased nutrient concentrations flowing through a lake that is already showing signs of water clarity impairment and high algae counts. This must be addressed in the EIS. Perhaps now is the time to plan and budget the construction of a water tunnel system under Shadow Mountain that would drain directly into the flow pipe to Estes Park and then onto Denver, bypassing completely Grand Lake itself. <p>Water needs and rights are difficult to balance with the needs and rights of Mother Nature. Do not be short sighted, examine consequences, intended and unexpected; consider the big picture even though the scope is narrow and defined. I realize that the creators of the water agreements of decades ago did not envision the world of today. I have hope and confidence that you will act in a more informed and responsible way.</p> <p> Dorothy Weber [REDACTED]</p> <p>DEC-13-2009 12:11PM From: [REDACTED] ID:TRI LAKES Page:001 R:96%</p>	<p>Comment #1675-8 (ID 1842): <i>I am NOT in support of the Moffat Firing Project as depicted in the EIS.</i></p> <p>Response #1675-8: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1675-7 (ID 1841): <i>While I can appreciate the growth in the Denver metropolitan area, it must be carefully monitored and developed and take into consideration all the resources necessary to sustain such growth. In a semi-arid climate, water sources are especially critical. They require sound stewardship, I do not believe that the EIS reflects such care and concern.</i></p> <p>Response #1675-7: The Corps analyzed demand in the Project area based on demographic projections from various Federal and local sources. The Corps also independently evaluated the demand projections stated in Denver Water's Integrated Resource Plan, which would help guide water management over the next 40 years. As stated in DEIS Section 4.14 and FEIS Section 5.16: "Several recent studies have suggested that there is no substantive causal relationship between population growth and the development of water, or vice versa. One such study is summarized as follows:</p> <p>The relationship between water and growth in the modern West is often misunderstood. Historically, it has been assumed that water development was a necessary precursor to growth and, similarly, that a lack of water development could act as a deterrent to growth. While these premises may have been true at one time, recent experience in Colorado and other western states shows both ideas are now unsupportable. To the contrary, many of the regions</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>showing the highest rates of growth in the West – from Douglas County, Colorado to Las Vegas, Nevada – show the opposite trend; growth is actually highest in some of the driest regions. Similarly the veto of the proposed Two Forks Dam on the East Slope by the U.S. Environmental Protection Agency (EPA) in 1990 certainly did not deter growth in the Denver Metropolitan area. Examples also suggest that an abundance of water is often insufficient to stimulate growth. The experience of Pueblo is illustrative (Nichols et al. 2001).</p> <p>Numerous other studies analyzing the relationship between growth and water reach similar conclusions, such as Western Land Use Trends and Policy: Implications for Water Resources (Riebsame 1997); Atlas of the New West (Center of the American West 1997); and Water in the West: The Challenge for the Next Century (Western Water Policy Review Advisory Commission 1998). This growth issue was evaluated and dismissed by the Corps during the NEPA analysis of the Two Forks Dam and Reservoir Project in 1988 – “As a result of including the No Federal Action scenario, the Corps was able to answer a major question then being asked – would growth continue in the Denver Metropolitan area without Federal approval of a major water supply project. The evaluation of the No Federal Action scenario determined that growth would occur regardless of Federal action.” (Corps 1998, Page 3-3 of the Final EIS Metropolitan Denver Water Supply EIS, Volume 1.)”</p> <p>Independent studies, such as the State-wide Water Supply Initiative, commissioned by the State of Colorado anticipate high growth rates for Colorado, including the East Slope. These high growth rates are likely to occur regardless of what water projects are constructed.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Comment #1675-6 (ID 1840): <i>The following points state my issues: 1. Mitigation measures must be clearly stated. The impact on the Fraser River will be substantial. The enhancement points that Denver Water is offering must become part of the EIS.</i></p> <p>Response #1675-6: Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p> <p>The Corps will include specific mitigation measures that are enforceable through a Section 404 Permit, if issued. Colorado Department of Public Health and Environment (CDPHE) will also include specific water quality mitigation measures that are enforceable through a Section 401 Certification. U.S. Fish and Wildlife Service (USFWS) will include specific requirements to protect threatened and endangered species that are enforceable through a Biological Opinion (BO). In addition, Denver Water has entered into three agreements that would enhance the existing environment and provide additional protections: Colorado River Cooperative Agreement (CRCA), Learning by Doing (LBD) Cooperative Effort, and Fish and Wildlife Enhancement Plan, copies of which are provided in FEIS Appendix M. Each of these plans will be implemented through permanent agreements between the parties. The Corps will consider these agreements, along with all “reasonably foreseeable future actions” in its decision process regarding the proposed Moffat Project. These agreements are not intended to mitigate the impacts of the proposed Project; instead, the purpose is to improve existing conditions of aquatic environments in the Colorado River Basin should Gross Reservoir be enlarged.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Comment #1675-5 (ID 1839): <i>The following points state my issues: 2. Conservation measures must be clearly communicated and enforced. Front Range communities can mandate native plantings, charge more for watering lawns and filling pools, and educate the public about water issues.</i></p> <p>Response #1675-5: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1675-4 (ID 1838): <i>The following points state my issues: 3. The Moffat Firing Project EIS makes no mention of the Windy Gap Firing Project While the agencies exist independently, nature does not. Grand County and its ecosystem will sorely impacted by both. They must be studied and considered together.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1675-4: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1675-3 (ID 1837): <i>The following points state my issues: 4. The draft EIS is written as if the seasons have little impact on the project. Spring high flows that come with snowmelt flush sediment and configure the streambed. Periodic high flows must be a part of mitigation and clearly stated in the EIS.</i></p> <p>Response #1675-3: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cubic feet per second (cfs) versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>addition, The Nature Conservancy's software, Indicators of Hydrologic Alteration (IHA) was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the right-of-way (ROW) agreements with the U.S. Forest Service (USFS).</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to</p>



Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1675-2 (ID 1836): <i>The following points state my issues: 5. The impact on Grand Lake is ignored. The Moffat Firming Project in conjunction with the CBT project will send increased nutrient concentrations flowing through a lake that is already showing signs of water clarity impairment and high algae counts. This must be addressed in the EIS. Perhaps now is the time to plan and budget the construction of a water tunnel system under Shadow Mountain that would drain directly into the flow pipe to Estes Park and then onto Denver, bypassing completely Grand Lake itself.</i></p> <p>Response #1675-2: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1675-1 (ID 1835): <i>Water needs and rights are difficult to balance with the needs and rights of Mother Nature. Do not be short sighted; examine consequences, intended and unexpected; consider the big picture even though the scope is narrow and defined. I realize that the creators of the water agreements of decades ago did not envision the world of day. I have hope and confidence that you will act in a more informed and responsible way.</i></p> <p>Response #1675-1: As stated in 33 Code of Federal Regulations (CFR) Part 320, which are, in part, the Federal regulations governing the Corps' review of Section 404 of the</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Clean Water Act (CWA), the decision whether to issue a Section 404 Permit is based on an evaluation of the probable impacts of the proposed activity on the public interest. That decision reflects the national concern for both protection and utilization of important resources. Factors relevant to the proposal that were considered in the public interest include conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1676 Maureen Kaskel Wenger</p>	<div style="text-align: center;">   </div> <p style="text-align: center;">Maureen Kaskel Wenger</p> <p>January 12, 2009</p> <p>Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Scott,</p> <p>Thank You for making recent trips to Grand County for the EIS hearings. We certainly do appreciate the time extension also!</p> <p>As a Grand County resident, I am writing to respectfully ask that the request of Denver Water for more diversions from our county be denied. This denial is essential to the health of our rivers and streams because:</p> <ol style="list-style-type: none"> 1. <u>We need flushing flows</u> for maintenance of the channel, a healthy & mobilized bottom for fish eggs and to keep the riparian environment viable via re-seeding and as a moisture source. 2. <u>The wildlife</u> depends on river water to drink. 3. <u>Denver already takes too much</u> of our water. 4. <u>Development must be limited</u> according to resources that are in the immediate area. 5. <u>MUCH MORE WATER CONSERVATION</u> must be done by Denver residents! Many more mandates and significant, enforcement with stiff fines must be implemented. I have personally SEEN sprinklers in Denver that are not properly adjusted and are watering just as much grass as concrete. This is nauseating... 	<p>Comment #1676-7 (ID 1849): <i>Thank You for making recent trips to Grand County for the EIS hearings. We certainly do appreciate the time extension also!</i></p> <p>Response #1676-7: The Corps notes the comment.</p> <p>Comment #1676-6 (ID 1848): <i>As a Grand County resident, I am writing to respectfully ask that the request of Denver Water for more diversions from our county be denied.</i></p> <p>Response #1676-6: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1676-5 (ID 1847): <i>This denial is essential to the health of our rivers and streams because: 1. We need flushing flows for maintenance of the channel, a healthy & mobilized bottom for fish eggs and to keep the riparian environment viable via re-seeding and as a moisture source.</i></p> <p>Response #1676-5: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>I lived in the Midwest for over 30 years on acreage with a well and am fully aware of just how do-able it is to conserve water. We were always cognizant of the large and unknown expense of drilling another well along with the gamble of getting sulphur water. Yards were, quite simply, just not watered! If the grass went brown, it meant you didn't have to mow quite as often (less environmental pollution too). Showers were short and water-sparing shower heads were used. Dish water was used sparingly (soak 1 pan, scrub, pour that water in the next pan & so on). It was a bit strange at first, but we got used to it! After no time at all, conservation became a natural way of life for us.</p> <p>When the initial well did eventually go dry, we were without water for 1 month. Water was 'imported' from our neighbors' outdoor spigot and we REALLY learned to conserve valuable water. If we can do it, so can Denver residents! <u>It only makes good ecological sense.</u></p> <p>Thank you for considering this.</p> <p>Sincerely,</p>  <p>Maureen Kaskel Wenger [Redacted Address]</p> <p>Ph#: [Redacted] Please do not hesitate to call. I would be glad to share all the water-saving things we did!</p>	<p>Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1676-4 (ID 1846): <i>This denial is essential to the health of our rivers and streams because: 2. The wildlife depends on river water to drink.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1676-4: The Corps consulted with USFWS and Colorado Parks and Wildlife (CPW) (previously called Colorado Division of Wildlife) to ensure compliance with wildlife protection regulations (e.g., the Endangered Species Act [ESA], Fish and Wildlife Coordination Act [FWCA], Migratory Bird Act) and by identifying appropriate mitigation measures to minimize and avoid impacts to wildlife. Pursuant to Colorado Revised Statute 37-60-122.2, Denver Water submitted a Fish and Wildlife Mitigation Plan to the Colorado Wildlife Commission on June 9, 2011 and the Colorado Water Conservation Board on July 13, 2011, and both agencies adopted the Fish and Wildlife Mitigation Plan. Denver Water would also work with the USFS to ensure that forest clearing and revegetation would be consistent with National Forest standards.</p> <p>Comment #1676-3 (ID 1845): <i>This denial is essential to the health of our rivers and streams because: 3. Denver already takes too much of our water.</i></p> <p>Response #1676-3: The Corps notes the comment.</p> <p>Comment #1676-2 (ID 1844): <i>This denial is essential to the health of our rivers and streams because: 4. Development must be limited according to resources that are in the immediate area.</i></p> <p>Response #1676-2: The health of potentially affected rivers and streams was fully evaluated in this EIS. Neither Denver Water nor the Corps are responsible for the policies that determine growth and development at the city or county levels for either Denver or any of its suburban customers. Denver Water has no control over the growth in these areas; growth decisions are made by city councils, county commissioners, and other entities. This growth is anticipated to occur with or without the</p>


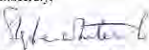
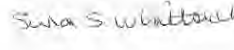
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Moffat Project, not as a result of the Moffat Project. The growth the Moffat Project would serve would occur whether or not the Project goes forward.</p> <p>Comment #1676-1 (ID 1843): <i>This denial is essential to the health of our rivers and streams because: 5. MUCH MORE WATER CONSERVATION must be done by Denver residents! Many more mandates and significant, enforcement with stiff fines must be implemented. I have personally SEEN sprinklers in Denver that are not properly adjusted and are watering just as much grass as concrete. This is nauseating ... I lived in the Midwest for over 30 years on acreage with a well and am fully aware of just how do-able it is to conserve water. We were always cognizant of the large and unknown expense of drilling another well along with the gamble of getting sulphur water. Yards were, quite simply, just not watered! If the grass went brown, it meant you didn't have to mow quite as often (less environmental pollution too). Showers were short and water-sparing shower heads were used. Dish water was used sparingly (soak 1 pan, scrub, pour that water in the next pan & so on). It was a bit strange at first, but we got used to it! After no time at all, conservation became a natural way of life for us. When the initial well did eventually go dry, we were without water for 1 month. Water was 'imported' from our neighbors' outdoor spigot and we REALLY learned to conserve valuable water. If we can do it, so can Denver residents! It only makes good ecological sense.</i></p> <p>Response #1676-1: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>and watering in rain or strong wind and other unfavorable conditions.</p> <p>Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1677 Stephen and Sara Whiteside</p>	<div style="text-align: right; margin-bottom: 10px;">January 18, 2010</div> <div style="text-align: center; margin-bottom: 10px;">  </div> <p>Scott Franklin, Mollai FHS Project Mgr. Corps Denver Regulatory Office 9307 S. Wadsworth Blvd Littleton, CO 80128</p> <p>Mr. Franklin,</p> <p>I am writing in protest to the proposed Gross Dam Expansion Project. As Coal Creek Canyon residents for many years, my family has enjoyed living in the Crescent Park neighborhood because of the quiet, peaceful environment and natural beauty of the area. The abundant wildlife, good neighbors and clean mountain lifestyle are why most, if not all of the residents in the canyon are living here.</p> <p>The prospect of a large-scale, 5-year long expansion of Gross Dam that would entail multiple trips up and down the canyon by large trucks and earth moving equipment would not only interrupt, but destroy the peaceful setting we all live in. The risk of permanent and irreparable damage to the highway, the neighborhood roads, the local environment, and the larger ramifications to Colorado's already tenuous water supply system would warrant a much more careful and conservative approach than has been evident in the proposed project. Traffic in the canyon is already on the rise, as more Denver area drivers use Coal Creek Canyon to access the high country. Adding a major, long-term construction project to an overused state highway with limited capacity for increased traffic would be asking for disaster.</p> <p>Colorado State Highway 72 is not a new road and was not designed for such heavy use. The issue of maintaining this road during year round seasonal conditions, under normal use is already daunting. The traffic delays, wear and tear, noise and air pollution created by heavy equipment and trucks sharing the road with neighborhood commuters, school buses, migrating wildlife and pedestrians would be intolerable. Obviously, the safety of canyon residents and those just passing through would be at increased risk as well.</p> <p>It is our understanding that the dam project would also have grave implications for the residents of the Grand Lake/Grand County area. The Town Manager and Geochemist from these areas have expressed grave concerns over the diversion of water from the Fraser and Colorado rivers. Western Slope water supplies are in critical shape already, and this would be a dangerous additional burden to them. Responsible stewardship of the dwindling water supply in our state requires careful, thoughtful planning of all the impacted communities.</p> <p>As the Gross Dam expansion project does not benefit the public in general, and is mainly for the profit and benefit of a private commercial enterprise and not the residents of Arvada, Westminster or Coal Creek Canyon, we cannot stress strongly enough our opposition to this action. Coal Creek Canyon is one of the few remaining residential gems along the Front Range, and as such must be protected from the impact of commercial development, which seems to go against the principles of good stewardship of our mountain communities and environment.</p> <p>Sincerely,</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  Stephen and Sara Whiteside </div> <div style="text-align: center;">  Sara S. Whiteside </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 30%;"> <p>CC: Brian Gogas Denver Water 1600 West 12th Ave. Denver, CO 80204</p> </div> <div style="width: 30%;"> <p>Boulder County Commissioner 1750 33rd Street Boulder, CO 80302</p> </div> <div style="width: 30%;"> <p>Jefferson County Commissioner 100 Jefferson County Pkwy Golden, CO 80401</p> </div> </div>	<p>Comment #1677-5 (ID 1854): <i>I am writing in protest to the proposed Gross Dam Expansion Project. As Coal Creek Canyon residents for many years, my family has enjoyed living in the Crescent Park neighborhood because of the quiet, peaceful environment and natural beauty of the area. The abundant wildlife, good neighbors and clean mountain lifestyle are why most, if not all of the residents in the canyon are living here.</i></p> <p>Response #1677-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1677-4 (ID 1853): <i>The prospect of a large-scale, 5-year long expansion of Gross Dam that would entail multiple trips up and down the canyon by large trucks and earth moving equipment would not only interrupt, but destroy the peaceful setting we all live in. The risk of permanent and irreparable damage to the highway, the neighborhood roads, the local environment, and the larger ramifications to Colorado's already tenuous water supply system would warrant a much more careful and conservative approach than has been evident in the proposed project. Traffic in the canyon is already on the rise, as more Denver area drivers use Coal Creek Canyon to access the high country. Adding a major, long-term construction project to an overused state highway with limited capacity for increased traffic would be asking for disaster.</i></p> <p>Response #1677-4: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77S, SH 72, SH 93, SH 128, US 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During peak construction period, about 35 trucks could deliver material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p> <p>CDOT is responsible for maintenance of the State highways such as SH 72. Boulder County is responsible for maintenance of county roads, such as CR 77S, CR 132, etc. Boulder County maintains Gross Dam Road (CR 77S) from SH 73 to the railroad tracks. Denver Water currently maintains Gross Dam Road from the railroad track crossing to Flagstaff Road. During construction, Denver Water or its contractor would be responsible for maintaining all of Gross Dam Road. Denver Water would work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1677-3 (ID 1852): <i>Colorado State Highway 72 is not a new road and was not designed for such heavy use. The issue of maintaining this road during year round seasonal conditions, under normal use is already daunting. The traffic delays, wear and tear, noise and air pollution created by heavy equipment and trucks sharing the road with neighborhood commuters, school buses, migrating wildlife and pedestrians would be intolerable. Obviously, the safety of canyon residents and those just passing through would be at increased risk as well.</i></p>



Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1677-3: Most of the roadways serving Gross Reservoir (e.g., SHs 72 and 93) are in good condition and are designed to handle large, heavy construction vehicles. Denver Water met with CDOT to discuss the best way to use SH 72 during construction. CDOT requested that truck travel occur between 8:00 a.m. and 3 p.m. Though trucks may need to use the road at other times (e.g., night time hauling), Denver Water would make every effort to abide by that timeframe. Denver Water is also evaluating alternatives for reducing construction traffic delays, including constructing and/or improving turnouts on SH 72 for slow-moving traffic.</p> <p>The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE Air Pollution Control Division (APCD) in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces the National Ambient Air Quality Standards (NAAQS). Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare.</p> <p>For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with all applicable noise ordinances and work with Boulder County to identify reasonable and feasible noise abatement measures for the Project construction period.</p> <p>Comment #1677-2 (ID 1851): <i>It is our understanding that the dam project would also have grave implications for the residents of the Grand Lake/Grand County area. The Town Manager and</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>Geochemist from these areas have expressed grave concerns over the diversion of water from the Frazer and Colorado rivers. Western Slope water supplies are in critical shape already, and this would be a dangerous additional burden to them. Responsible stewardship of the dwindling water supply in our state requires careful, thoughtful planning of all the impacted communities.</i></p> <p>Response #1677-2: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1677-1 (ID 1850): <i>As the Gross Dam expansion project does not benefit the public in general, and is mainly for the profit and benefit of a private commercial enterprise and not the residents of Arvada, Westminster or Coal Creek Canyon, we cannot stress strongly enough our opposition to this action. Coal Creek Canyon is one of the few remaining residential gems along the Front Range, and as such must be protected from the impact of commercial development, which seems to go against the principles of good stewardship of our mountain communities and environment.</i></p> <p>Response #1677-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1679 Donald R. Woods</p>	<p style="text-align: center;">Moffat Collection System Project Draft Environmental Impact Statement Public Comments</p> <div style="text-align: center;">  </div> <p>Name: Donald R. Woods Address: [REDACTED] Representing: Myself Comments:</p> <p>The Fraser River runs through our property. We are located between the Town of Fraser and Tabernash. Besides being a Blue Ribbon quality fishery, it is a large wetland area and a wildlife corridor. Denver Water's plans to de-water the Fraser River will do us and the natural environment irreparable harm. Removing more water from the river will further increase the water temperature, harming the fish and dry up the wetlands. Spring time high flows must be preserved to flush sediment.</p> <p>Progressive thinking today recognizes the value of "sustainability". It is time for Denver Water to come to terms with that concept. Continuing to rape the environment for the sake of development is no longer wise or acceptable.</p> <p>In addition, we support the points that Trout Unlimited is focusing on. It is time for Denver water to adopt the policies and practices that are being implemented in Southern Nevada and more recently in Southern California concerning water conservation. This is no longer the 1940's and 1950's; they need to come into the Twenty First Century.</p> <p>This Draft EIS must recognize (1) the impact that the Northern Water Conservancy District plans will have on the Upper Colorado River and Grand Lake; (2) the impact on the waste water treatment plants on the Fraser River (we are just downstream from one of these plants); and (3) the inadequacy of mitigation measures committed to by Denver Water.</p> <p>Thank You  Donald R. Woods </p> <p style="text-align: right;">Date: <u>JANUARY 23, 2010</u></p>	<p>Comment #1679-5 (ID 1866): <i>The Fraser River runs through our property. We are located between the Town of Fraser and Tabernash. Besides being a Blue Ribbon quality fishery, it is a large wetland area and a wildlife corridor. Denver Water's plans to de-water the Fraser River will do us and the natural environment irreparable harm. Removing more water from the river will further increase the water temperature, harming the fish and dry up the wetlands. Spring time high flows must be preserved to flush sediment.</i></p> <p>Response #1679-5: High spring flows would still occur with the Moffat Project on-line. FEIS Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all of Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years; however, the figures in FEIS Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to FEIS Sections 4.6.1 and 5.1. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 contains an evaluation of the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic biological resources in the Project area. Potential mitigation measures for predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of channel morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>in the FEIS. Additional assessments included added sampling sites, a review of historic photos, a sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3. The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11. An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analyses that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3. Flow related changes that have occurred in the Fraser River Basin since 1935 are due in part to Denver Water's existing Moffat Collection System diversions; however, those impacts are attributable to past and present operations of that system, not the proposed Moffat Project. Under the proposed Moffat Project, additional diversions through the Moffat Tunnel would occur primarily during runoff months in May, June and July (see DEIS Table H-3.1). The environmental effects of additional diversions attributable to the proposed Moffat Project were evaluated and determined to be minimal to moderate depending on the resource. Denver Water's Conceptual Mitigation Plan is included in FEIS Appendix M. Where required, mitigation would be prepared as part of a Section 404 Permit.</p> <p>Comment #1679-4 (ID 1865): <i>Progressive thinking today recognizes the value of "sustainability". It is time for Denver Water to come to terms with that concept. Continuing to rape the environment for the sake of development is no longer</i></p>


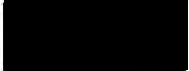
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>wise or acceptable. In addition, we support the points that Trout Unlimited is focusing on. It is time for Denver water to adopt the policies and practices that are being implemented in Southern Nevada and more recently in Southern California concerning water conservation. This is no longer the 1940's and 1950's; they need to come into the Twenty First Century.</i></p> <p>Response #1679-4: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1679-3 (ID 1864): <i>This Draft EIS must recognize the impact that the Northern Water Conservancy District plans will have on the Upper Colorado River and Grand Lake;</i></p> <p>Response #1679-3: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area,</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1679-2 (ID 1863): <i>[This draft must recognize] the impact on the waste water treatment plants on the Fraser River (we are just downstream from one of these plants).</i></p> <p>Response #1679-2: Additional water quality analysis was performed for the Fraser River, including review of the National Pollutant Discharge Elimination System (NPDES) permits for Wastewater Treatment Plants (WWTPs). Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1679-1 (ID 1862): <i>[This draft must recognize] the inadequacy of mitigation measures committed to by Denver Water.</i></p> <p>Response #1679-1: Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1680 Brian D. Young</p>	<p style="text-align: right;">February 6, 2010</p> <p>To: Mr. Scott Franklin US Army Corps of Engineers 9307 South Wadsworth Blvd. Littleton, CO 80128-6901</p> <p>Re: Project #2035</p> <p>Dear Mr. Franklin,</p> <p>I am writing in regards to the Denver Water proposed expansion of Gross Reservoir near the community of Coal Creek Canyon, Colorado. I am a nine year resident of Coal Creek Canyon, a local pastor, married, with three children. I am deeply concerned about the proposed reservoir expansion on two fronts.</p> <p>First, as for the need for expanding Gross Reservoir, I have seen the proposal from Denver Water, and find it unconvincing as to the need for this expensive expansion. I have understood that there is far more that can be done in the area of water conservation in Denver. Currently, 60% of water used in Denver is toward recreational use—watering of lawns primarily. I feel strongly that much more could be gained through affective communication of the vision to conserve water in metro Denver. Further, the expansion will have adverse impact on the Frasier River and the Western Slope. I feel the proposal is short-sighted and callous to these issues.</p> <p>Second, I am deeply concerned about the safety of my children and others in our community with the proposed four to six year project, with massive trucks bringing supplies up our two-lane state highway throughout the day. I am told that there would be an average of one large truck every ten minutes. Just three years ago, as a pastor, I performed a tragic funeral for a bicyclist in our community, hit by a reckless driver on State Highway 72. The noise pollution, dust pollution, and safety of myself, my young children, and others in our community all have me opposed to this project.</p> <p>Please use your influence to halt this expansion and seek other conservation options. Hold Denver Water to task to demonstrate more effectively the need for this expansion, to justify this particular plan in light of other water sources, and to think more long-term in its proposed solutions. Thank you so very much for your time and consideration.</p> <p>Sincerely,  Brian D. Young </p>	<p>Comment #1680-5 (ID 1871): <i>I am writing in regards to the Denver Water proposed expansion of Gross Reservoir near the community of Coal Creek Canyon, Colorado. I am a nine year resident of Coal Creek Canyon, a local pastor, married, with three children. I am deeply concerned about the proposed reservoir expansion on two fronts.</i></p> <p>Response #1680-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1680-4 (ID 1870): <i>First, as for the need for expanding Gross Reservoir, I have seen the proposal from Denver Water, and find it unconvincing as to the need for this expensive expansion. I have understood that there is far more that can be done in the area of water conservation in Denver. Currently, 60% of water used in Denver is toward recreational use—watering of lawns primarily. I feel strongly that much more could be gained through affective communication of the vision to conserve water in metro Denver. Further, the expansion will have adverse impact on the Frasier River and the Western Slope. I feel the proposal is short-sighted and callous to these issues.</i></p> <p>Response #1680-4: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1680-3 (ID 1869): <i>Second, I am deeply concerned about the safety of my children and others in our community with the proposed four to six year project, with massive trucks bringing supplies up our two-lane state highway throughout the day. I am told that there would be an average of one large truck every ten minutes. Just three years ago, as a pastor, I performed a tragic funeral for a bicyclist in our community, hit by a reckless driver on State Highway 72. The noise pollution, dust pollution, and safety of myself, my young children, and others in our community all have me opposed to this project.</i></p> <p>Response #1680-3: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77S, SH 72, SH 93, SH 128, US 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During the peak construction period, about 35 trucks could deliver material daily. Additional trucks</p>


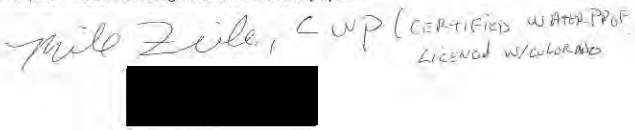
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p> <p>The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces the NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare.</p> <p>For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with all applicable noise ordinances and work with Boulder County to identify reasonable and feasible noise abatement measures for the Project construction period.</p> <p>Comment #1680-2 (ID 1868): <i>Please use your influence to halt this expansion and seek other conservation options.</i></p> <p>Response #1680-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1680-1 (ID 1867): <i>Hold Denver Water to task to demonstrate more effectively the need for this expansion, to justify this particular plan in light of other water sources, and to think more long-term in its proposed solutions. Thank you so very much for your time and consideration.</i></p> <p>Response #1680-1: The Corps notes the comment.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1681 Mike Ziebe, Certified Water Professional, Licensed with Colorado</p>	<div style="text-align: center;">  </div> <p>Scott Franklin, Moffat EIS Project Manager</p> <p>I am a concerned resident of Fraser valley and Grand County, who has lived here for twenty years. In that time I have witnessed an alarming disregard for the health of our rivers and creeks by Denver Water Board, who seems only interested in money and their Front Range customers.</p> <p>Our forests are dying from a Western Pine Beetle epidemic and dewatering the watershed is not helping the matter. Think what the water quality will be like for both us and DWB after all the fires that historically follow large beetle kill die-offs come through. Heck, I hope there will be enough water left to protect our homes and children.</p> <p>Another complication of dewatering watersheds and massive tree die-offs is the exacerbation of the destruction of natural weather patterns. Trees transpire water vapor into the atmosphere which typically causes afternoon cloud build up and cloud forest rain storms. Since moving here I have watched this natural phenomenon almost completely stop. This is compounding the problem. Please come and have a look if you haven't already seen this area.</p> <p>Now the Moffat Firing Project threatens what little water we have left. Minimum Baseline flows are not only critical to maintain a healthy stream, but are essential to the health of our entire ecosystem. Don't we owe it to our children and future generations to insure that they also have a place to come and recreate.</p> <p>Every weekend and holiday the population of the Fraser valley swells as cars pour in from Front Range locations to recreate and relax in this natural environment. Clambering to escape the city and artificial environment, they come to enjoy the same things we have come here to live for.</p> <p>Why is there so little concern for an environment that has an immeasurable intrinsic value to so many. This natural environment is also vital to Colorado's tourism industry and our economy. By conserving only 10% of current use, Denver Water customers could come up with the extra 34,000acre/ft. intended to be taken by the Moffat Firing Project.</p> <p>Denver Water must be required to maintain minimum baseline flows to maintain health stream temperatures and spring flushing. In my time here I have also watched as our cold clear streams have become choked by algae because of the reduced stream flows and increased stream temperatures.</p> <p>A midcourse correction plan must be included in any permit. We need to allow for mitigation and have the Preferred Alternative only.</p> <p>We must work together to lessen the impact we are all having on the greatest natural resources that Colorado has, the wilderness future generations deserve to play in.</p> <div style="text-align: center;">  </div>	<p>Comment #1681-8 (ID 1879): <i>I am a concerned resident of Fraser valley and Grand County who has lived here for twenty years. In that time I have witnessed an alarming disregard for the health of our rivers and creeks by Denver Water Board, who seems only interested in money and their Front Range customers.</i></p> <p>Response #1681-8: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1681-7 (ID 1878): <i>Our forests are dying from a Western Pine Beetle epidemic and dewatering the watershed is not helping the matter. Think what the water quality will be like for both us and DWB after all the fires that historically follow large beetle kill die-offs come through. Heck, I hope there will be enough water left to protect our homes and children.</i></p> <p>Response #1681-7: Potential long-term effects of the pine beetle are many; however, the Moffat Project would not influence or impact the pine beetle epidemic. Impacts from the pine beetle on sediment supply are unknown. DEIS Section 4.1 (FEIS Section 5.1) under the subheading, Sediment Supply, explains in a qualitative means how pine beetle could impact river systems. Additional water quality analysis was also performed on the Fraser River and Three Lakes related to nutrients (FEIS Sections 4.6.2 and 5.2). Information about the relationship of the Project and mountain pine beetle has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>In 2010, Denver Water and the USFS announced a plan to equally share an investment of \$33 million over a five-year period, for restoration projects on more</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>than 38,000 acres of National Forest lands. Recent wildfires and the State's 3 million acres of pine beetle-infested forests have emphasized the need to protect forest health. This partnership will accelerate and expand the USFS' ability to restore forest health in watersheds critical for Denver Water's water supplies and infrastructure. Forest thinning and other wildfire fuels reduction projects will take place around and upstream of Denver Water reservoirs. Restoration also will help the forests become more resistant to future insects and disease, reduce wildlife risks and maintain habitat for fish and wildlife.</p> <p>Comment #1681-6 (ID 1877): <i>Another complication of dewatering watersheds and massive tree die-offs is the exacerbation of the destruction of natural weather patterns. Trees transpire water vapor into the atmosphere which typically causes afternoon cloud build up and cloud forest rain storms. Since moving here I have watched this natural phenomenon almost completely stop. This is compounding the problem. Please come and have a look if you haven't already seen this area.</i></p> <p>Response #1681-6: An analysis of the average annual precipitation measured at Gross Reservoir over the recent 30 years indicates year-to-year variability, but very little long term change (according to the Western Regional Climate Center at http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?co3629) (WRCC 2010). A change in weather patterns potentially caused by a localized reduction in tree cover would be extremely difficult to identify, and would be an unavoidable impact.</p> <p>Comment #1681-5 (ID 1876): <i>Now the Moffat Firming Project threatens what little water we have left. Minimum Baseline flows are not only critical to maintain a healthy stream, but are essential to the health of our entire ecosystem. Don't</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>we owe it to our children and future generations to insure that they also have a place to come and recreate. Every weekend and holiday the population of the Fraser valley swells as cars pour in from Front Range locations to recreate and relax in this natural environment. Clambering to escape the city and artificial environment, they come to enjoy the same things we have come here to live for.</i></p> <p>Response #1681-5: The Corps has reviewed the recreation analysis and has provided additional information and revisions for clarity in FEIS Section 5.15. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1681-4 (ID 1875): <i>Why is there so little concern for an environment that has an immeasurable intrinsic value to so many. This natural environment is also vital to Colorado's tourism industry and our economy. By conserving only 10% of current use, Denver Water customers could come up with the extra 34,000 acre/ft. intended to be taken by the Moffat Firming Project.</i></p> <p>Response #1681-4: Water conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all</p>


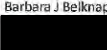
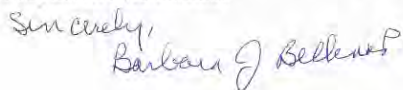
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in Table 1-2 of the DEIS and FEIS.</p> <p>Comment #1681-3 (ID 1874): <i>Denver Water must be required to maintain minimum baseline flows to maintain health stream temperatures and spring flushing. In my time here I have also watched as our cold clear streams have become choked by algae because of the reduced stream flows and increased stream temperatures.</i></p> <p>Response #1681-3: The third paragraph of DEIS Section 4.9.1.2 states: “Didymo apparently prefer cool temperatures and moderate to fast waters with relatively high base flows during the low flow part of the year (Kumar et al. 2009). Reduced flows or higher temperatures may discourage Didymo. The similarities in base flows in late summer and in the sediment transport (flushing) capabilities of the Fraser River indicate that the Proposed Action and other Project alternatives would have no impact on Didymo.” Additional discussions on algae (Didymo) were added to FEIS Sections 4.6.11 and 5.11.</p> <p>An evaluation of the flows required to transport fine materials (i.e., very fine gravels and smaller) was completed and the flow rate and frequency of those flows were defined in DEIS Section 4.1 under the subheading, “Hydraulic Modeling and Sediment Transport Capacity.” Results were presented in DEIS Sections 4.1.1.2 and 4.1.6.3 and graphical results of</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>the analysis were included in Appendix H-10. Additional channel morphology analyses were performed for the Fraser River for the FEIS (see FEIS Sections 4.6.3 and 5.3).</p> <p>Additional water quality analyses have been performed on the Fraser River and the Three Lakes area, including various temperature studies. Refer to FEIS Sections 4.6.2 and 5.2. Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p> <p>In addition to monitoring stream temperatures, Denver Water has proposed to bypass additional water when stream temperatures reach a certain level.</p> <p>Comment #1681-2 (ID 1873): <i>A midcourse correction plan must be included in any permit. We need to allow for mitigation and have the Preferred Alternative only.</i></p> <p>Response #1681-2: Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>Comment #1681-1 (ID 1872): <i>We must work together to lessen the impact we are all having on the greatest natural resources that Colorado has, the wilderness future generations deserve to play in.</i></p> <p>Response #1681-1: The Corps notes the comment.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1684 Barbara J. Belknap</p>	<div style="text-align: center;">  <div style="display: flex; justify-content: center; align-items: center;"> <div style="text-align: center;"> <p>Barbara J Belknap</p>  </div> </div> </div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver regulatory Office 9307 S. Wadsworth Blvd., Littleton, CO 80128</p> <p>Dear Mr. Franklin:</p> <p>I am writing to you because I am concerned about the impacts of the proposed Moffat Firing Project on water quality in Grand County and the overall health of the Upper Colorado basin.</p> <p>The beautiful Colorado River and its tributaries – particularly our own Fraser River – provide habitation and recreational opportunities that is the most important factor in Colorado's economy and quality of life.</p> <p>I have owned property in Grand County for over fifty years and have lived on thirty-five acres on Ranch Creek for thirty-five years. Sadly, I have watched the deterioration of my creek as well as the Fraser River. The spring thaws used to bring cascading waters down Ranch Creek to the Fraser River. My children used to tube it. After the thaw we were left with pools deep enough for the children to swim and raft. In July we had nutritive trout pools; ducks nested early in the spring and we were often visited by cranes.</p> <p>Now, when the exciting early thaws begin to flush our streams and fill our meadows with nutrients – the flow is quickly halted by upper mountain diversions, sending our healthy and needed water to the Moffat and thus to Denver. We no longer have ducks nesting in the spring or spring tubing. Last summer there were no healthy trout pools or trout jumping in my stream. By July the stream is thick with weeds and algae covering the rocks and sandy bottom; too shallow and too warm for the trout. The water is no longer crystal clear. By midsummer I had many deer with their young visiting my stream for evening drinks and playing in the water. I have rarely seen them the past two years because the waters are no longer healthy and cool.</p> <p>Our natural environment is being sacrificed to create an artificial environment on the Front Range. The west slope is suffering. If the Moffat Firing Project and the Windy Gap Firing Project are both approved, only 26% of our native flow will remain.</p> <p>In 2005, American Rivers listed the Fraser River as the third most endangered river in the United States because of the huge quantities of our waters being diverted to the Front Range. Without Proper mitigating our entire water system in Grand County is being harmed.</p> <p>It is obvious that the majority of impacts are not being attended to by mitigation. The Denver Water's Draft Environmental Impact Statement does not recognize my concerns, which is to have an aggressive conservation program such as the Grand County Stream Management Plan. This plan would eliminate the need of the Moffat Firing Project.</p> <p>Mr. Franklin, I feel your responsibility is to the environment and future generations. If the Fraser River System fails it is greatly due to your indifference.</p> <p style="text-align: center;">  </p>	<p>Comment #1684-2 (ID 2083): <i>I am writing to you because I am concerned about the impacts of the proposed Moffat Firing Project on water quality in Grand County and the overall health of the Upper Colorado basin. The beautiful Colorado River and its tributaries - particularly our own Fraser River - provide habitation and recreational opportunities that is the most important factor in Colorado's economy and quality of life. I have owned property in Grand County for over fifty years and have lived on thirty-five acres on Ranch Creek for thirty-five years. Sadly, I have watched the deterioration of my creek as well as the Fraser River. The spring thaws used to bring cascading waters down Ranch Creek to the Fraser River. My children used to tube it. After the thaw we were left with pools deep enough for the children to swim and raft. In July we had nutritive trout pools; ducks nested early in the spring and we were often visited by cranes.</i></p> <p>Response #1684-2: The Corps notes the comment.</p> <p>Comment #1684-1 (ID 2082): <i>Now, when the exciting early thaws begin to flush our streams and fill our meadows with nutrients - the flow is quickly halted by upper mountain diversions, sending our healthy and needed water to the Moffat and thus to Denver. We no longer have ducks nesting in the spring or spring tubing. Last summer there were no healthy trout pools or trout jumping in my stream. By July the stream is thick with weeds and algae covering the rocks and sandy bottom; too shallow and too warm for the trout. The water is no longer crystal clear. By midsummer I had many deer with their young visiting my stream for evening drinks and playing in the water. I have rarely seen them the past two years because the waters are no longer healthy and cool.</i></p> <p>Response #1684-1: The EIS discusses flow changes and diversions with the Project and the potential impacts to habitat for aquatic life and fish populations in these tributaries.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>Comment #1684-5 (ID 2086): <i>Our natural environment is being sacrificed to create an artificial environment on the Front Range. The west slope is suffering. If the Moffat Firing Project and the Windy Gap Firing Project are both approved, only 26% of our native flow will remain.</i></p> <p>Response #1684-5: The Corps notes the comment.</p> <p>Comment #1684-4 (ID 2085): <i>In 2005, American Rivers listed the Fraser River as the third most endangered river in the United States because of the huge quantities of our waters being diverted to the Front Range. Without Proper mitigating our entire water system in Grand County is being harmed. It is obvious that the majority of impacts are not being attended to by mitigation. The Denver Water's Draft Environmental Impact Statement does not recognize my concerns, which is to have an aggressive conservation program such as the Grand County Stream Management Plan. This plan would eliminate the need of the Moffat Firing Project.</i></p> <p>Response #1684-4: Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, that portion of the comment is simply noted. The GCSMP has been reviewed and appropriate data</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), channel morphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15). Appropriate conceptual mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the 34,000 AF/yr water supply shortfall identified by Denver Water would be met through conservation, so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #1684-3 (ID 2084): <i>Mr. Franklin, I feel your responsibility is to the environment and future generations. If the Fraser River System fails it is greatly due to your indifference.</i></p>




Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		Response #1684-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1685 Jeffrey L. Browne</p>	<div> </div> <p style="text-align: center;">MOFFAT FIRING PROJECT PUBLIC COMMENTS</p> <p style="text-align: right;">March 1, 2010</p> <div> <p>Army Corps of Engineers Mr. Scott Franklin, Moffat EIS Project Mgr Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> </div> <p>Mr. Franklin,</p> <p>Conservation first with Diversion being a last resort... Current levels of diversion by Denver Water from the West Slope have already impacted the environment and Denver Water thus far has taken no responsibility or steps to protect the environment which they are impacting. An aggressive Denver water conservation program would eliminate the need for this project. For example, the city of Denver outside lawn watering accounts for somewhere in the neighborhood of 62% of single family water uses.</p> <p>I have been a visitor to the Fraser Valley beginning in 1985 and a full-time resident since September of 2000. I am an active skier, mountain biker, camper and hiker within the Fraser Valley and surrounding area. I am a member of the Fraser River Valley Lions Club and take part in the operation and maintenance of five (5) campground facilities in conjunction with the U.S. Forest Service. Three (3) of the campgrounds facilities are located adjacent to the Fraser River while the other two (2) are along St. Louis Creek.</p> <p>It is impossible to live here in the Fraser Valley and not notice the flow variations in the Fraser River, Vasquez Creek, James Creek, St. Louis Creek and Ranch Creek [which flows directly below our residence]. One can not also avoid becoming aware of the constant conversation of local citizenry surrounding the past and present history of our main water flow source- the Fraser River. I have hiked and biked almost the entire length of the Fraser River beginning at Berthoud Pass going all the way to the Colorado River. I am witnessing first hand the changes to the trees and vegetation, wildlife and fishing that decreased water flows have caused to the environment.</p> <p><u>I feel that transbasin water diversions should be an option of last resort to meet water supply needs.</u></p> <p>"Taking water from one watershed and moving it hundreds of miles to another watershed causes numerous environmental, economic, and social problems. Diversions rob the source watershed of its freshwater, disrupting river flows, lake levels, and groundwater tables. The receiving watershed may also be impacted by the diverted water introducing new aquatic invasive species into the ecosystem." (Great Lakes Environmental Law Center)</p> <p>Since moving to the Fraser Valley I attempt to satisfy my requirements by shopping locally. I do periodically require trips over Berthoud Pass and out of the valley. The quantity of traction sand that CDOT applies to the pass in order that residents and visitors alike can travel safely during the winter is astounding. This sand is best viewed in the summer when CDOT attempts to reclaim as much of the sand as possible. The tons of this sand that make it into the Fraser River are equally astounding. Without the periodic spring high flows this sand begins to take over the river negatively impacting its health. <u>The draft EIS does not address the importance of these flushing flows to revitalize the Fraser River.</u></p> <p>Attending the Windy Gap Firing meetings opened my eyes to the fact that current water law and environmental oversight is not positioned to deal with the realities of 2010 and beyond. I can not understand how the Windy Gap Firing and Moffat Firing Projects and EIS studies are not tied together, or even one and the same. The figures that I am hearing state that if both of these firing projects are</p>	<p>Comment #1685-10 (ID 2098): <i>Conservation first with Diversion being a last resort... Current levels of diversion by Denver Water from the West Slope have already impacted the environment and Denver Water thus far has taken no responsibility or steps to protect the environment which they are impacting. An aggressive Denver water conservation program would eliminate the need for this project. For example, the city of Denver outside lawn watering accounts for somewhere in the neighborhood of 62% of single family water uses.</i></p> <p>Response #1685-10: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<div></div> <div><p>MOFFAT FIRING PROJECT PUBLIC COMMENTS March 1, 2010</p><p>approved only 26% of the native flows will remain in the Upper Colorado River. <u>The combined effects of both these projects must be acknowledged and studied together.</u></p><p>The 13.1 mile Alva B. Adams tunnel receives water from the Three Lakes network which in turn is fed by water pumped from both the Windy Gap and Willow Creek Reservoirs. The Three Lakes Region is already experiencing high algae counts with greatly diminished water clarity. This is very evident from my first visit in 1985 to present day. With the proposed decreased Fraser River flows along with the increased concentrations of nutrients from agriculture and the six (6) waste water treatment facilities along the river prior to Windy Gap, the situation in the Three Lakes Region can only worsen. The draft EIS is not addressing the impacts that the Moffat project has on the Windy Gap project. Again, the <u>combined effects of both these projects must be acknowledged and studied together.</u> Denver Water and the Northern Water District are both affecting the ecosystems of the Colorado River and impacting the Three Lakes Region.</p><p>Mitigation plans offsetting the effects of transbasin diversion as requested by this project are being discussed but I am not aware of any plans being incorporated into the Permit or EIS study. If this is the case, the <u>Grand County Stream Management Plan</u> should be incorporated in the Permit to aid in establishing an efficient mitigation plan for this project. Denver Water must be required to establish and maintain a comprehensive monitoring program to analyze water resource and ecosystem status.</p><p>Several discussions/meetings which I have taken part in have talked about a "reopening clause" being added to the EIS. This would allow the permit process to be reopened if predetermined biological or temperature points related to the health of the Fraser river were reached. I am strongly for this clause.</p><p>I understand that The Moffat Firing Project engages the following federal environmental laws:</p><ul style="list-style-type: none">• National Environmental Policy Act,• Clean Water Act,• Federal Water Supply Act,• Endangered Species Act.<p>With this engagement with federal environmental laws how is it possible that further destruction to the environment and ecosystems of the Western Slopes is even being considered?</p><p>Sincerely,  Jeffrey L. Browne</p><div></div></div>	<p>developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1685-9 (ID 2097): <i>I have been a visitor to the Fraser Valley beginning in 1985 and a full-time resident since September of 2000. I am an active skier, mountain biker, camper and hiker within the Fraser Valley and surrounding area. I am a member of the Fraser River Valley Lions Club and take part in the operation and maintenance of five (5) campground facilities in conjunction with the U.S. Forest Service. Three (3) of the campgrounds facilities are located adjacent to the Fraser River while the other two (2) are along St. Louis Creek.</i></p>

developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.

Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.

The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.

Comment #1685-9 (ID [2097](#)):
I have been a visitor to the Fraser Valley beginning in 1985 and a full-time resident since September of 2000. I am an active skier, mountain biker, camper and hiker within the Fraser Valley and surrounding area. I am a member of the Fraser River Valley Lions Club and take part in the operation and maintenance of five (5) campground facilities in conjunction with the U.S. Forest Service. Three (3) of the campgrounds facilities are located adjacent to the Fraser River while the other two (2) are along St. Louis Creek.

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1685-9: The Corps notes the comment.</p> <p>Comment #1685-8 (ID 2096): <i>It is impossible to live here in the Fraser Valley and not notice the flow variations in the Fraser River, Vasquez Creek, James Creek, St. Louis Creek and Ranch Creek [which flows directly below our residence]. One cannot also avoid becoming aware of the constant conversation of local citizenry surrounding the past and present history of our main water flow source- the Fraser River. I have hiked and biked almost the entire length of the Fraser River beginning at Berthoud Pass going all the way to the Colorado River. I am witnessing first hand the changes to the trees and vegetation, wildlife and fishing that decreased water flows have caused to the environment.</i></p> <p>Response #1685-8: Changes that have occurred in the Fraser River Basin since 1935 are due in part to Denver Water's existing Moffat Collection System diversions; however, those impacts are attributable to the past and present operations of that system and not the proposed Moffat Project. The proposed Moffat Project would divert additional water in average and wet years during runoff months. Current problems caused by low flows during the late summer and in dry years are due in part to operations of the existing Moffat Collection System as well as growth in Grand County. The proposed Moffat Project would not cause additional flow reductions during those times since there would be no additional diversions due to the Moffat Project in the late summer or in dry years. There would be no additional diversions in dry years because Denver Water would divert the maximum amount physically and legally available under its existing water rights without additional storage on-line. DEIS Table H-3.1 shows additional diversions through the Moffat Tunnel would occur primarily during runoff in May, June and July.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Outside of those months, there would be little to no additional water diverted. Therefore, current problems caused by low flow conditions would not be exacerbated by the proposed Moffat Project. The environmental effects of existing Moffat Collection System diversions in combination with additional diversions due to the Moffat Project are presented in FEIS Chapters 4 and 5. Additional diversions attributable to the proposed Moffat Project were evaluated and the associated environmental effects were determined to be minimal to moderate. Denver Water's Conceptual Mitigation Plan is included in FEIS Appendix M. Where required, mitigation would be prepared as part of a Section 404 Permit.</p> <p>Comment #1685-7 (ID 2095): <i>I feel that transbasin water diversions should be an option of last resort to meet water supply needs. "Taking water from one watershed and moving it hundreds of miles to another watershed causes numerous environmental, economic, and social problems. Diversions rob the source watershed of its freshwater, disrupting river flows, lake levels, and groundwater tables. The receiving watershed may also be impacted by the diverted water introducing new aquatic invasive species into the ecosystem." (Great Lakes Environmental Law Center)</i></p> <p>Response #1685-7: The Corps conducted a detailed alternative screening process for the Moffat Project that considered over 300 water sources and infrastructure structural components (Alternatives Screening Report, Corps 2007) including agricultural water transfer, municipal reuse, and various storage locations.</p> <p>FEIS Section 5.1 analyzed Project-related flow changes and reservoir levels. FEIS Section 5.4 analyzed Project-related groundwater impacts. Minor reductions in stream levels attributable to the Project</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>would likely cause only minor reductions in groundwater levels, which would be limited to areas immediately adjacent to the streams, downstream of the Denver Water diversion points in the upper Fraser River watershed. FEIS Section 5.11 contains an expanded discussion of the issue of invasive aquatic species. Currently, no zebra mussels or other invasive species have been identified in the tributaries being diverted from the West Slope. Thus, it is unlikely that these species would be transferred to the East Slope. There are no anticipated Project-related influences on aquatic invasive species on the West Slope or East Slope since water that is free of such species is already being transferred.</p> <p>Comment #1685-6 (ID 2094): <i>Since moving to the Fraser Valley I attempt to satisfy my requirements by shopping locally. I do periodically required trips over Berthoud Pass and out of the valley. The quantity of traction sand that CDOT applies to the pass in order that residents and visitors alike can travel safely during the winter is astounding. This sand is best viewed in the summer when CDOT attempts to reclaim as much of the sand as possible. The tons of this sand that make it into the Fraser River are equally astounding, Without the periodic spring high flows this san begins to take over the river negatively impacting its health. The draft EIS does not address the importance of these flushing flows to revitalize the Fraser River.</i></p> <p>Response #1685-6: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>An additional sediment sampling and transport modeling site was added on the Fraser River to better understand impacts of traction sand. Historic responses of the Fraser River were also completed using aerial photographs and channel cross section to evaluate past impacts. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes considering traction sand are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1685-5 (ID 2093): <i>Attending the Windy Gap Firming meetings opened my eyes to the fact that current water law and environmental oversight is not positioned to deal with the realities of 2010 and beyond. I can not understand how the Windy Gap Firming and Moffat Firming Projects and EIS studies are not tied together, or even one and the same. The figures that I am hearing state that if both of these firming projects are approved only 26% of the native flows will remain in the Upper Colorado River. The combined effects of both these projects must be acknowledged and studied together.</i></p> <p>Response #1685-5: Please see the response to Comment Identification (ID) 2092.</p> <p>Comment #1685-4 (ID 2092): <i>The 13.1 mile Alva B. Adams tunnel receives water from the Three Lakes network which in turn is fed by water pumped from both the Windy Gap and Willow Creek Reservoirs. The Three Lakes Region is already experiencing high algae counts with greatly diminished water clarity. This is very evident from my first visit in 1985 to present day. With the proposed decreased Fraser River flows along with the increased concentrations of nutrients from agriculture and the six (6) waste water treatment facilities along the river prior to Windy Gap, the situation in the Three Lakes Region</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>can only worsen. The draft EIS is not addressing the impacts that the Moffat project has on the Windy Gap project. Again, the combined effects of both these projects must be acknowledged and studied together. Denver Water and the Northern Water District are both affecting the ecosystems of the Colorado River and impacting the Three Lakes Region.</i></p> <p>Response #1685-4: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Comment #1685-3 (ID 2091): <i>Mitigation plans offsetting the effects of transbasin diversion as requested by this project are being discussed but I am not aware of any plans being incorporated into the Permit or EIS study. If this is the</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>case, the Grand County Stream Management Plan should be incorporated in the Permit to aid in establishing an efficient mitigation plan for this project. Denver Water must be required to establish and maintain a comprehensive monitoring program to analyze water resource and ecosystem status.</i></p> <p>Response #1685-3: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required, including Adaptive Management for mitigation.</p> <p>Comment #1685-2 (ID 2090): <i>Several discussions/meetings which I have taken part in have talked about a "reopening clause" being added to the EIS. This would allow the permit process to be reopened if predetermined biological or temperature points related to the health of the Fraser river were reached. I am strongly for this clause.</i></p> <p>Response #1685-2: If issued, a Section 404 Permit would include a statement that the Corps can re-evaluate and re-condition the Section 404 Permit as conditions warrant.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Comment #1685-1 (ID 2089): <i>I understand that The Moffat Firing Project engages the following federal environmental laws: • National Environmental Policy Act, • Clean Water Act, • Federal Water Supply Act, • Endangered Species Act With this engagement with federal environmental laws how is it possible that further destruction ,to the environment and ecosystems of the Western Slopes is even being considered?</i></p> <p>Response #1685-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1686 Cynthia A. Yokooji</p>	<p>FROM : GABRIEL DE CASTRO FOR : [REDACTED] DATE: 2010 03:25PM PT</p> <p>January 27, 2010</p> <p>To: U.S. Army of Engineers Scott Franklin, Moffat EIS Project Manager 9307 South Wadsworth Blvd. Littleton, CO 80218</p> <p>Attn: Scott Franklin Comments regarding the Environmental Impact Statement for an amendment to the Hydropower License to enlarge the Gross Dam Reservoir</p> <p>From: Cynthia A. Yokooji [REDACTED]</p> <p>JAN-27-2010 03:25PM From: [REDACTED] ID: TRI LAKES Page: 031 R: 001</p>	<p>Comment #1686-8 (ID 1887): <i>It is with alarm and great concern that I am writing this letter regarding the expansion of Gross Dam Reservoir in Coal Creek Canyon, Colorado. As a life long resident of Coal Creek Canyon this concerns me on several levels.</i></p> <p>Response #1686-8: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1686-7 (ID 1886): <i>Coal Creek Canyon has always been a "bedroom community" for the length of its existence and is likely to remain so. Residents commute many miles to Denver, Boulder and Golden for work. While there is a [illegible] [illegible] [illegible] junior high and high school students must ride a bus into Golden. The only highway on which we can commute is Colorado Highway 72, a two lane highway down its entire length. It is inconceivable to think of the increased traffic and danger to our residents if we are to see the semi trucks and heavy equipment required for this expansion of Gross Reservoir. Colorado 72 highway is two lanes only, with four [illegible] to [illegible]. The [illegible] [illegible] there are few places for big trucks or equipment to pull over to allow passage of faster moving traffic. Bicycles, and abundant wildlife, also add to the road conditions here in the Canyon.</i></p> <p>Response #1686-7: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p style="text-align: center;">[REDACTED] [REDACTED] [REDACTED]</p> <p style="text-align: center;">January 25, 2010</p> <p>To: U.S. Army Corp of Engineers Scott Franklin, Moffat EIS Project Manager</p> <p>It is with alarm and great concern that I am writing this letter regarding the expansion of Gross Dam Reservoir in Coal Creek Canyon, Colorado. As a life long resident of Coal Creek Canyon this concerns me on several levels.</p> <p>Coal Creek Canyon has always been a "bedroom community" for the length of it's existence and is likely to remain so. Residents commute many miles to Denver, Boulder or Golden for work. While this is a voluntary school bus, junior high and high school students must ride a bus into Golden. The only highway on which we can commute is Colorado Highway 72, a two lane highway down it's entire length. It is inconceivable to think of the increased traffic and danger to our residents if we are to see the semi trucks and heavy equipment required for the expansion of Gross Reservoir. Colorado 72 highway is two lane only, with four lanes to go. The shoulders are narrow and there are few places for big trucks or equipment to pull over to allow passage of faster moving traffic. Bicycles, and abundant wildlife, also add to the road conditions here in the Canyon.</p> <p>The front range of the mountains near Denver has for the most part, remained pristine. Several attempts have been made to bring rock quarries into our mountain community in past years. Rock quarries have no place in a quiet mountain community, and the residents have fought and won before. The Gross Dam Expansion promises us no less than 10 rock quarries in this area. Of major concern is the location of a known fault line in the area of Gross Dam. Increasing the size of Gross Dam, could increase the danger to the city of Boulder below. Wildlife is abundant in the area, including a return of the historic migration of elk to the area. The increased heavy traffic, not to mention blasting of rock quarries could destroy not only the quiet of our mountain community, but this wildlife area as well. Property values are also likely to be affected negatively by this proposed expansion of Gross Reservoir. In a time not only of an uncertain economy, but increased knowledge of possible global warming, this proposed expansion is worrisome.</p> <p>It appears the main thrust behind this expansion is the increased expansion and sprawl of particularly the city of Aurora, and other entities along the front range. The Denver Water Board does not have a good history of conserving water. Indeed, Denver has one of the poorest records in use of water within the western states over many decades. Increased growth and periods of drought have not changed the habits of the Denver Water Board. Why should the upper reaches of the river in upstream communities come under the attack of the Denver Water Board with this expansion? We, as residents of Coal Creek Canyon, will be subjected to heavy traffic, no less than 10 rock quarries, destruction of a portion of our area and wildlife, and possible loss of property values, to satisfy the "needs" for the urban sprawl.</p> <p style="text-align: center;">JAN-27-2010 03:26PM From: [REDACTED] ID: THE LAKES Page:002 Rev:000</p>	<p>Comment #1686-6 (ID 1885): <i>The front range of the [illegible] [illegible] Denver [illegible] [illegible] for the most part, remained pristine. Several attempts have been made to bring rock quarries into our mountain community in past years. Rock quarries have no place in a quiet mountain community, and the residents have [illegible] and won before. The Gross Dam Expansion [illegible] us no less than 10 rock quarries in this area.</i></p> <p>Response #1686-6: As shown on DEIS Figure 2-3, the proposed Project would have one quarry, two spoil areas, and two stockpile areas for aggregate. As described in DEIS Section 2.3.2.1 (page 2-32), the majority of the aggregate would be produced on-site. Aggregate not produced on site would be obtained from one or more commercial East Slope suppliers. For the purpose of this EIS, the aggregate suppliers were assumed to be in the Longmont area.</p> <p>Comment #1686-5 (ID 1884): <i>Of major concern is the location of a known fault line in the area of Gross Dam. Increasing the size of Gross Dam, could increase the danger to the city of Boulder below.</i></p> <p>Response #1686-5: Section 4.3.1.1 in the DEIS states: "In summary, the proposed dam raise and expansion of Gross Reservoir may increase the potential for reservoir-induced seismicity, but not at substantial levels. Potential issues related to geologic resources will be addressed through geotechnical and seismic studies in the design and construction phases." Additionally, Table 4.20-1 states "Dam raise and expansion may slightly increase the potential for reservoir-induced seismicity." Detailed geotechnical and seismic studies would be conducted as part of the final design and construction phases of the Project.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>Please consider these comments regarding the amendment to the existing license of Gross Dam Reservoir to increase the size of the Dam.</p> <p>Sincerely,</p> <p>Cynthia Yokoyama</p> <p>[REDACTED]</p> <p>JAN-27-2018 03:26PM From: [REDACTED] ID: TRI LAKES Page: 1002 R-1004</p>	<p>The Livingston Sheer Zone and Fault, the Rogers Fault, and the Copeland Fault are not mapped as potentially active and therefore unlikely to create earthquake activity near Gross Reservoir (Kirkham and Rogers 1981). Faults that have been identified in the vicinity of the dam have been deemed inactive so there is little chance that the activation of these faults is possible.</p> <p>Comment #1686-4 (ID 1883): <i>Wildlife is abundant in the area, including a return of the historic migration of elk to the area. The increased heavy traffic not to mention blasting of rock quarries could destroy not only the quiet of our mountain community, but this wildlife area as well.</i></p> <p>Response #1686-4: More information has been added to the FEIS regarding the elk migration corridor near Gross Reservoir. An analysis of displacement effects to elk during construction has been added to the wildlife analysis in the FEIS Section 5.9.1.1.</p> <p>Denver Water plans to implement confined charge blasting for construction activities to minimize noise. In general, wildlife may be temporarily and indirectly impacted by construction noise. Wildlife responses to noise would depend on several factors such as species, the type of activity, topography, and individual sensitivity. An analysis of displacement effects to elk during construction from blasting and tree cutting has been added to the wildlife analysis in the FEIS (Section 5.9.1.1).</p> <p>The Corps has consulted with USFWS and CPW to ensure compliance with wildlife protection regulations (e.g., ESA, FWCA, Migratory Bird Treaty Act), and to identify appropriate mitigation measures to minimize and avoid impacts to wildlife. Denver Water would also work with the USFS to ensure that forest clearing and</p>



Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>revegetation would be consistent with National Forest Standards.</p> <p>FEIS Section 5.9.7 includes a mitigation measure to limit vehicle operations to designated construction areas.</p> <p>Comment #1686-3 (ID 1882): <i>Property values are also likely to be affected negatively by this proposed expansion of Gross Reservoir. In a time not only of an uncertain economy, but increased knowledge of possible global warming, this proposed expansion is worrisome.</i></p> <p>Response #1686-3: An expanded analysis of impacts to communities surrounding Gross Reservoir was included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Comment #1686-2 (ID 1881): <i>It appears the main thrust behind this expansion is the increased expansion and sprawl of particularly the city of Arvada, and other entities along the front range. The Denver Water Board does not have a good history of conserving water. Indeed, Denver has one of the poorest records in use of water within the western states over many decades. Increased growth and periods of drought have not changed the habits of the Denver Water Board. Why should the [illegible] [illegible] of our lives [illegible] [illegible] [illegible] come under the attack of the Denver Water Board with this expansion? We as residents of Coal Creek Canyon, will be subjected to heavy traffic, no less than 10 rock quarries construction of [illegible] [illegible] [illegible], and possible loss of property values, to satisfy the "needs" for the urban sprawl.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1686-2: Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought. Arvada submitted a conservation plan to the State of Colorado and it was approved in September of 2012.</p> <p>As stated in 33 CFR Part 320, which are, in part, the Federal regulations governing the Corps' review of Section 404 of the CWA, the decision whether to issue a Section 404 Permit is based on an evaluation of the probable impacts of the proposed activity on the public interest. In other words, the Corps will conduct a public interest review weighing the impacts and benefits of the Project as part of its Section 404 Permit evaluation.</p> <p>Comment #1686-1 (ID 1880): <i>Please consider these comments regarding the amendment to the existing license of Gross Dam Reservoir to increase the size of the Dam.</i></p> <p>Response #1686-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1688 Tony Zubricky</p>	<div style="text-align: center;">  </div> <p>February 7, 2010 US Army Corps. Of Engineers Attn: Mr. Scott Franklin 9307 South Wadsworth Blvd. Littleton, CO. FERC Project #2035 Gross dam expansion project</p> <p>Dear Sirs/Madams,</p> <p>I am addressing the impending negative impacts and environmental issues in Coal Creek Canyon and the foothills if the Gross Dam expansion project goes ahead as planned. To even think of developing any area around the highly polluted RFP site poses many health issues because of the PU pollution at the site and in the underground waste disposal system. It is too toxic to even graze cattle in the area because it causes animal sterility and disturbing any of the radioactive waste burial sites would pose a major health threat. The Government even concluded the site too polluted and too expensive to clean up, so bury it and put a fence around it.</p> <p>Why not use that entire corridor as a wind energy farm along with PV solar panels and we would all win with the energy shortage we face. The state of Colorado would be an "Energy Hero" in the eyes of the country. The air now along the front range is extremely polluted and will only get worse with continued development, I do not see where this clean air issue is addressed.</p> <p>If this poorly conceived plan does go ahead, the impact to the traffic and people and the environment in Coal Creek Canyon will be severely impacted. The canyon is too narrow for car and bicycle traffic let alone the proposed additional heavy truck traffic. Even when gross Dam was first constructed, the primary method of haulage was the rail road. There is today a maintenance equipment loading siding at the bottom of Coal Creek, Hwy 72 and Hwy 93 and a rail spur that runs North thru RFP property to the TXI gravel and concrete plant. The idea of hauling these same aggregate supplies from Longmont to the construction site is a joke. Why not use the resources that are already in place to use. There is even an existing rail siding at Crescent, where the Gross Dam road crosses the rail tracks. This siding has been there since the early 1900's and was utilized in the 1950's for the original construction of the dam. The switches and rails have been removed but the grading and road bed remains solid to this day.</p> <p>With a minimal capital investment and the truth about scheduling construction rail traffic with the present rail schedules, the dam could be served very efficiently by rail until far into the future. The traffic hazards, environmental issues and pollution and energy waste could all be minimized by this method. It could also be an interesting tourist destination by rail to the Water Boards "Front range jewel" if the project goes ahead into the construction phase. Thank you for allowing us an open line of communication.</p> <div style="text-align: right;"> <p>Sincerely concerned,  Tony Zubricky</p> </div>	<p>Comment #1688-4 (ID 1891): <i>I am addressing the impending negative impacts and environmental issues in Coal Creek Canyon and the foothills if the Gross Dam expansion project goes ahead as planned. To even think of developing any area around the highly polluted RFP site poses many health issues because of the PU pollution at the site and in the underground waste disposal system. It is too toxic to even graze cattle in the area because it causes animal sterility and disturbing any of the radioactive waste burial sites would pose a major health threat. The Government even concluded the site too polluted and too expensive to clean up, so bury it and put a fence around it.</i></p> <p>Response #1688-4: This issue was discussed in DEIS Sections 3.18.1.2 and 4.18.2.2. Refer also to FEIS Sections 3.20 and 4.6.20. The southern boundary of the U.S. Department of Energy Rocky Flats site is near the proposed Leyden Gulch Reservoir described in Alternative 1c. Soil and groundwater at Rocky Flats has been extensively analyzed for radioactive isotopes and other contaminants. Extensive remediation has also been conducted at Rocky Flats with site closure completed in 2006. During construction of a new reservoir, it is possible unknown contaminants could be remobilized from soil to groundwater. The increased recharge to groundwater from the proposed reservoir and influence of construction activities may increase the rate of contaminant mobility. However, natural recharge of the groundwater system from infiltration of precipitation is already occurring at the site. Additionally, seepage of good quality water out of the reservoir would provide natural attenuation by dilution. If the Corps issues a Section 404 Permit for Alternative 1c, it would include Special Conditions for additional soil and /or groundwater analyses near the Leyden Gulch Reservoir site. In addition, Denver Water would comply with all applicable Federal, State and local regulations</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>and obtain the appropriate permits prior to construction in Jefferson County.</p> <p>Comment #1688-3 (ID 1890): <i>Why not use that entire corridor as a wind energy farm along with PV solar panels and we would all win with the energy shortage we face. The state of Colorado would be an "Energy Hero" in the eyes of the country.</i></p> <p>Response #1688-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1688-2 (ID 1889): <i>The air now along the front range is extremely polluted and will only get worse with continued development, I do not see where this clean air issue is addressed.</i></p> <p>Response #1688-2: Air Quality was addressed in DEIS Sections 3.11, 4.11 and 5.6.11 and is included in FEIS Sections 3.13, 4.6.13, and 5.13. The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare. A Corps' Section 404 Permit, if issued for one of the Moffat EIS alternatives, will require that construction activities conform to Colorado State Air Quality standards.</p> <p>Comment #1688-1 (ID 1888): <i>If this poorly conceived plan does go ahead, the impact to the traffic and people and the environment in Coal Creek Canyon will be severely impacted. The</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>canyon is too narrow for car and bicycle traffic let alone the proposed additional heavy truck traffic. Even when gross Dam was first constructed, the primary method of haulage was the rail road. There is today a maintenance equipment loading siding at the bottom of Coal Creek, Hwy 72 and Hwy 93 and a rail spur that runs North thru RFP property to the TXI gravel and concrete plant. The idea of hauling these same aggregate supplies from Longmont to the construction site is a joke. Why not use the resources that are already in place to use. There is even an existing rail siding at Cresent, where the Gross Dam road crosses the rail tracks. This siding has been there since the early 1900's and was utilized in the 1950's for the original construction of the dam. The switches and rails have been removed but the grading and road bed remains solid to this day. With a minimal capital investment and the trust about scheduling construction rail traffic with the present rail schedules, the dam could be served very efficiently by rail until far into the future. The traffic hazards, environmental issues and pollution and energy waste could all be minimized by this method. It could also be an interesting tourist destination by rail to the Water Boards "Front range jewel" if the project goes ahead into the construction phase. Thank you for allowing us an open line of communication.</p> <p>Response #1688-1: Denver Water hired an independent consultant to evaluate using the railroad to transport material to the site. The consultant found that using the railroad would not be feasible for the Project because of the technical, logistical, topographical and cost problems associated with unloading material at the existing railroad siding. Based on discussions with Union Pacific Railroad, the consultant determined that new infrastructure would need to be constructed to accommodate the rail cars and avoid conflicts with the coal train traffic on the mainline; handle unloading of the various materials</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>into trucks, which would be needed to transport the material to the dam site; and avoid conflicts with traffic on Gross Dam Road. A new siding would be very difficult and expensive (approximately \$20 million) to construct due to the constraints of the existing topography and would require a significant amount of material to be hauled to the siding by truck on SH 72. Denver Water is evaluating alternatives for reducing construction traffic delays, including constructing and/or improving turnouts on SH 72 for slow-moving traffic.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1690 Jack C. Coddington</p>	<p>March 3, 2010</p> <p>To: U.S. Army Corps of Engineers Denver Water Board The Environmental Protection Agency Elected Officials of the State of Colorado The City and County of Boulder, Colorado All the Citizens of the Great State of Colorado</p> <p>Re: The request from Denver Water to the U.S. Army Corps of Engineers for a Section 404 Permit to expand Gross Reservoir under the proposed Moffat Collection System Project.</p> <p>From: Jack C. Coddington [REDACTED]</p> <p>I would like to go on record as being opposed to the proposed expansion of Gross Reservoir. I have lived near the North Shore area of Gross Reservoir for just over 30 years. My wife and I moved here for the pristine surroundings, peace and quiet, recreational opportunities, and wildlife viewing the area provides. Obviously if this proposed project were to go through, it would have a devastating effect on our lives, and the lives of hundreds of other mountain dwellers in the area. There are several reasons for my objection to this project and I would like to address each of these.</p> <p>1. <u>Demand and supply projections-</u> - The projection models used to determine future water supply and demand necessitate "voluminous and accurate" data. The data used are biased, outdated and possibly invalid, and the projections are based on assumptions that, unfortunately, are incorrect. The projected demand and shortfall of 18,000 AF/yr in 2030 are incorrectly over-estimated and invalid. In addition, increased supply through use of "unused" reusable water and increased reservoir capacity was not included. These supply sources must be included in the EIS, and water supply and demand projections for 2016 and 2030 revised accordingly.</p> <p>- The demand and supply projections in the DEIS are invalid, due to outdated information, possible "development bias" and failure to accurately estimate conservation savings, all falsely inflating demand. Furthermore, failure to consider</p>	<p>Comment #1690-8 (ID 2414): <i>I would like to go on record as being opposed to the proposed expansion of Gross Reservoir. I have lived near the North Shore area of Gross Reservoir for just over 30 years. My wife and I moved here for the pristine surroundings, peace and quiet, recreational opportunities, and wildlife viewing the area provides. Obviously if this proposed project were to go through, it would have a devastating effect on our lives, and the lives of hundreds of other mountain dwellers in the area. There are several reasons for my objection to this project and I would like to address each of these.</i></p> <p>Response #1690-8: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1690-7 (ID 2413): <i>1. Demand and supply projections- - The projection models used to determine future water supply and demand necessitate "voluminous and accurate" data. The data used are biased, outdated and possibly invalid, and the projections are based on assumptions that, unfortunately, are incorrect. The projected demand and shortfall of 18,000 AF/yr in 2030 are incorrectly over-estimated and invalid. In addition, increased supply through use of "unused" reusable water and increased reservoir capacity was not included. These supply sources must be included in the EIS, and water supply and demand projections for 2016 and 2030 revised accordingly. - The demand and supply projections in the DEIS are invalid, due to outdated information, possible "development bias" and failure to accurately estimate conservation savings, all falsely inflating demand. Furthermore, failure to consider innovative conservation and enhanced efficiency as a reasonable, practicable and common sense approach to water supply invalidates the "shortfall" rationale for expansion of Gross Dam and</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>innovative conservation and enhanced efficiency as a reasonable, practicable and common sense approach to water supply <i>invalidates</i> the "shortfall" rationale for expansion of Gross Dam and Reservoir. The foundation upon which the proposed action rests is weak. We find however, that the <i>shortfall projection has been accepted without question and critical analysis</i>. We also find a clear bias against conservation. The fact that Denver Water is now focusing on conservation, and customers will be increasingly successful in saving water, has not been taken into account and the meager 16,000 AF/yr by 2030 projection made in 2002 is false. The use of conservation data from 1997 invalidates both the projected shortfall beginning in 2016, and the shortfall of 18,000 AF/yr projected for 2030. Most importantly, the "mandatory" firm yield of 18,000 AF/yr derived from the latter projection is invalid.</p> <p>2. <u>Environmental Consequences</u></p> <p>NOISE - The main noise makers in the proposed action are: Traffic noise from haul trucks, worker vehicles, delivery trucks. The entire tree removal operation, the quarry rock-processing facility, and the concrete production plant. Throughout the DEIS they talk about how all construction noise levels fall within the recommended levels, and how noise will diminish with distance. On page 4-361 they even say "At distances greater than 50', noise levels diminish rapidly". THIS IS TOTAL NONSENSE! Let me complete the picture. Our community of Lakeshore Park is located on the North shore of Gross reservoir. Several homes actually look right at the dam, maybe $\frac{1}{2}$ of a mile straight distance. We are used to the sounds of nature up here, with the only mechanical noise coming from the trains in Coal Creek Canyon area. Everyone knows sound travels easily over water. I can be standing by the boat house on the north shore and hear people talking over at the South shore. So let's bring in all the truck traffic hauling borrow materials, chainsaws, trucks, and helicopters removing trees, a rock crushing processing plant running on 6 or 7 - 150 hp. diesel engines, and a concrete batch plant operating on 6-100 hp. diesel engines, all operating at the same time. And on page 2-33 they say "The rock crushing and concrete plants would likely operate up to 24 hours per day during the approximately April through November concrete placement period." HOW DOES ANYONE EXPECT THE RESIDENTS SURROUNDING GROSS RESERVOIR TO LEAD NORMAL LIVES! Forget about decibel limits for a minute, what about the psychological effects of this continuous noise 24 hours a day? I would like the final EIS to show actual facts that address this issue. This is perhaps the greatest issue for neighboring residents of the project.</p>	<p><i>Reservoir. The foundation upon which the proposed action rests is weak. We find however, that the shortfall projection has been accepted without question and critical analysis. We also find a clear bias against conservation. The fact that Denver Water is now focusing on conservation, and customers will be increasingly successful in saving water, has not been taken into account and the meager 16,000 AF/yr by 2030 projection made in 2002 is false. The use of conservation data from 1997 invalidates both the projected shortfall beginning in 2016, and the shortfall of 18,000 AF/yr projected for 2030. Most importantly, the "mandatory" firm yield of 18,000 AF/yr derived from the latter projection is invalid.</i></p> <p>Response #1690-7: Water conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in Table 1-2 of the DEIS and FEIS. Denver Water has an aggressive 10-year conservation goal.</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>AIR QUALITY - Having read all the data on air quality issues in the DEIS, I fail to see where the tree removal operation is considered under the "Fugitive Dust" section. I have great concerns for our air quality issues for the surrounding communities of Gross Reservoir. I doubt that all the logging roads around the project area will be covered with gravel, and the ones that are not will be huge dust generators. Combine that with the always present canyon winds we have up here and you have the perfect formula for huge dust problems. I would like the final EIS to address this situation based on facts.</p> <p>As for the proposed Air Curtain Destructors. No where does the DEIS state the by-product of this operation. It only states that "heat and a minimum of pollutants escape from the bin." I would like the final EIS to further list the output of these machines.</p> <p>WATER QUALITY - I have some concerns on water quality upon initial first fill and how that will affect the fish. The DEIS states on page 4-313 "Construction activities during enlargement would have a temporary direct moderate adverse impact on the fish and invertebrate community. The impact would last until construction activities are completed." Also, on page 4-31 they state "Increasing the reservoir capacity may change the water quality of the reservoir, particularly in the initial years of filling. One likely change is an increase in organic matter and the associated increase in water quality parameters such as total organic carbon and decrease in dissolved oxygen due to decay of organic matter." An increase in organic matter is a polite way of describing MUD! Upon initial fill, I picture a very muddied body of water. This will be from the rising waters mixing with the topsoil in the new expanded areas. I have great concerns for the trout and Musky. Trout need clear, cold, oxygenated water to survive. I personally fish for the Tiger Musky in Gross, and in the warmer months they move into the shallow weed beds to lie and wait to ambush smaller bait fish. How are they going to do this if the water is muddied? I would like the final EIS to address how the initial fill will effect these fish populations.</p> <p>WILDLIFE - I have a few concerns with how this project will effect the existing wildlife populations. I believe there will be no noticeable effect on the big game species. They simply will move off during construction. I feel very sad about the small game, such as squirrels and rabbits. Most of them will be killed during the tree removal operation as they simply try to hide instead of run away. The hydro-axe machine will kill most of them as it mows down anything in its path. - Most birds</p>	<p>Starting in 2007, Denver Water has been encouraging their customers to use 22% less water than they were consuming before the 2002 drought, by 2016. To date, Denver Water customers are using 18% less water than they were before the 2002 drought.</p> <p>When calculating future demand, Denver Water considers past and future conservation efforts. As shown in FEIS Table 1-1, total demand has been decreased due to conservation.</p> <p>In 2010, Denver Water updated their water demand projections based on the most recent population and demographic projections available from the DRCOG, Colorado State Demographer's Office and other relevant sources of demographic data. The updated demands are expected to exceed Denver Water's available supplies in the year 2022. The Corps has independently evaluated the updated projections and found them reasonable for use in the FEIS.</p> <p>Comment #1690-6 (ID 2412): NOISE - The main noise makers in the proposed action are: Traffic noise from haul trucks, worker vehicles, delivery trucks. The entire tree removal operation, the quarry rock-processing facility, and the concrete production plant. Throughout the DEIS they talk about how all construction noise levels fall within the recommended levels, and how noise will diminish with distance. On page 4-361 they even say "At distances greater than 50, noise levels diminish rapidly". THIS IS TOTAL NONSENSE ! Let me complete the picture. Our community of Lakeshore Park is located on the North shore of Gross reservoir. Several homes actually look right at the dam, maybe 3/4 of a mile straight distance. We are used to the sounds of nature up here, with the only mechanical noise coming from the trains in Coal Creek Canyon area. Everyone knows sound travels easily over water. I can be standing by the boat house on the north shore</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>will simply fly off to other areas, BUT IT WILL BE CRUCIAL TO NOT REMOVE ANY TREES DURING THE NESTING SEASON. Table 3.7-2 lists all the possible songbirds that nest around the reservoir. Can we be assured their active nests will not be destroyed? - This brings me to the Osprey. Why were they not listed as a Raptor living around the Gross reservoir area in table 3.7-1? I believe it was about 5 years ago a wildlife organization placed 2 nesting platforms near the Osprey point area. Ever since then we have had at least one nesting pair of Osprey each year raise their young in the nests they built on these platforms. I need an explanation in the final EIS as to why this bird has been left off the list and how they will be treated during the construction. Their nests are below the new high water mark, and almost directly across from the proposed rock quarry. Shouldn't there be special consideration to this species that has been successfully reintroduced to this area?</p> <p>TRANSPORTATION - County Road 68 has been listed as necessary for the tree removal operation. Does this also include the section called "68 J" between the Lakeshore Park Subdivision and FR 359? If so, we have a problem with that as it goes right through the Lakeshore Park Subdivision. Can we be reassured this section of road won't be used for the tree removal process?</p> <p>3. <u>FINAL COMMENTS</u></p> <p>All of the above comments mostly pertain to flaws in the DEIS. In closing, I would like to speak from my heart.</p> <p>I have lived in the foothills West of Boulder for the last 30 years, and Colorado for 36 years. My wife and I are very avid outdoor enthusiasts and enjoy all forms of outdoor recreation from hunting and fishing, to camping, hiking, backpacking, boating, snowshoeing, biking, and photography. Slowly, over the years, the steady influx of the growing population has begun to take away what once was so special. I call it "The Colorado Experience." Most places you go anymore are overcrowded. The air quality in the Front Range keeps getting worse. You can't return from a ski trip down I-70 without a 2-3 hour traffic delay. It's just not the same experience it once was. And this is all due to too many people.</p> <p>This proposed project will do nothing to maintain what "Colorado Experience" is left. Instead, it takes us in the opposite direction. It will divert more water from already hurting rivers on the Western Slope, create an environmental disaster in the</p>	<p><i>and hear people talking over at the South shore. So let's bring in all the truck traffic hauling borrow materials, chainsaws, trucks, and helicopters removing trees, a rock crushing processing plant running on 6 or 7 - 150 hp. diesel engines, and a concrete batch plant operating on 6-100 hp. diesel engines, all operating at the same time. And on page 2-33 they say "The rock crushing and concrete plants would likely operate up to 24 hours per day during the approximately April through November concrete placement period." HOW DOES ANYONE EXPECT THE RESIDENTS SURROUNDING GROSS RESERVOIR TO LEAD NORMAL LIVES ! Forget about decibel limits for a minute, what about the psychological effects of this continuous noise 24 hours a day? I would like the final EIS to show actual facts that address this issue. This is perhaps the greatest issue for neighboring residents of the project.</i></p> <p>Response #1690-6: The Council on Environmental Quality (CEQ) regulations specify that the description of impacts in an EIS should identify how short-term uses of the environment would affect long-term productivity of resources. Short-term (temporary) is defined as the construction period through final reclamation, which is assumed to take up to 5 years. Long-term productivity refers to the period after the Moffat Project is completed and mitigation measures are in place. Noise impacts were classified as "temporary" since they would occur during the construction period. On-site construction-related noise (construction machinery) is expected to create a temporary and moderate impact, meaning noise would be readily apparent and have measurable effects of disturbance. Off-site construction related noise (i.e., construction traffic) is expected to create temporary and minor impacts, meaning noise level changes would be slight, but detectable, with some perceptible effects of disturbance.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>dam building process, and promote more growth along the Front Range. If this project goes through, it could be "The straw that broke the camel's back"!</p> <p>This project really affects <i>everyone</i> in the State of Colorado. It's too bad we the people don't have a real say in it. I would bet if it were put to a vote to the people of the State of Colorado, it would unanimously be voted down.</p> <p>Please think of the citizens and wildlife of the Great State of Colorado when deciding on the fate of this project. Thank you. - Jack Coddington.</p> 	<p>Additional noise impacts would occur from tree removal and residue disposal at Gross Reservoir. This activity would take approximately 6 to 8 months to complete and the specific timeline for tree removal would be determined during final design in cooperation with CPW and the USFS. On-site temporary noise impacts would occur from timber harvest, yarding, and use of temporary roads. Noise levels would be similar to other construction activities and are not expected to exceed relevant standards and guidelines. Off-site impacts would occur from trucks hauling the forest residue (ash, chips, whole trees, logs, and/or firewood) to sites where they would be disposed or sold. Roads used for access would include Flagstaff Road (CR 77) east and north of the dam, Gross Dam Road (CR 77 South) from SH 72, CR 97, and CR 68, SH 72, and SH 93. Impacts are anticipated to be temporary and moderate.</p> <p>All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and the EPA, as summarized in FEIS Table 5.14-1. On-site construction noise may periodically exceed the EPA noise threshold of 70 A-weighted decibel scale for public exposure, but the public would not be exposed to these levels on a continuous basis. The noise levels described in the EIS are predicted at distances of less than 50 feet from the source and would be temporary and remote. Sound travels omnidirectionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 dB.</p> <p>Once the pouring of concrete starts, it must be done in a continuous manner or a cold joint would form in the dam. These cold joints require additional work</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>(sandblasting and grouting) before additional concrete can be placed and could result in the development of weak planes in the dam. In order to maintain the highest quality of structural integrity of the dam, the number of cold joints must be minimized. Thus, once the pouring of concrete starts, it must be done in a continuous manner (i.e., 24 hours a day/7 days per week).</p> <p>Comment #1690-5 (ID 2411): <i>AIR QUALITY - Having read all the data on air quality issues in the DEIS, I fail to see where the tree removal operation is considered under the "Fugitive Dust" section. I have great concerns for our air quality issues for the surrounding communities of Gross Reservoir. I doubt that all the logging roads around the project area will be covered with gravel, and the ones that are not will be huge dust generators. Combine that with the always present canyon winds we have up here and you have the perfect formula for huge dust problems. I would like the final EIS to address this situation based on facts. As for the proposed Air Curtain Destructors. No where does the DEIS state the by-product of this operation. It only states that "heat and a minimum of pollutants escape from the bin." I would like the final EIS to further list the output of these machines.</i></p> <p>Response #1690-5: A site-specific analysis of wind conditions in the Gross Reservoir area has been added to FEIS Section 3.13. The Fugitive Dust Control Plan that would be required by the CDPHE Land Development Air Quality Permit is discussed in FEIS Section 5.13.7, and specific control measures are listed in Table 5.13-9. Relevant to the concern of high winds in the Gross Reservoir area is the control measure anticipated for active construction areas: "Under extreme conditions (e.g., high winds), temporary curtailment of earth-moving activity may be deemed necessary." One of the control measures in CDPHE's general land development permit GP03 is</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>the following: "No earthwork activities shall be performed when the wind speed exceeds 30 miles per hour."</p> <p>The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces the NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare. A Corps' Section 404 Permit, if issued for one of the Moffat EIS alternatives, will require that construction activities conform to Colorado State Air Quality standards.</p> <p>Air quality impacts from tree removal and residue disposal are discussed in FEIS Section 5.13.1.1. Denver Water would work with the USFS to determine the best disposal option, which may involve the use of an Air curtain incinerator (ACI) onsite or grinding the trees and removing the chips. ACIs use a blower to create a high velocity air flow to a combustor box. This provides higher temperatures and longer residence time for combustion than open burning, resulting in more complete combustion and fewer particulate emissions (smoke). A recent study evaluating the effectiveness of ACIs showed ACIs to give a 23-fold reduction in PM2.5 emissions over pile burns, and a 33-fold reduction over understory burns according to "Reducing PM2.5 Emissions through Technology" (USFS, Rocky Mountain Research Station, Fires Sciences Laboratory, Missoula, Montana).</p> <p>Comment #1690-4 (ID 2410): <i>WATER QUALITY – I have some concerns on water quality upon initial first fill and how that will affect the fish. The DEIS states on page 4- 313 "Construction activities during enlargement would have a temporary</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>direct moderate adverse impact on the fish and invertebrate community. The impact would last until construction activities are completed." Also, on page 4-31 they state "Increasing the reservoir capacity may change the water quality of the reservoir, particularly in the initial years of filling. One likely change is an increase in organic matter and the associated increase in water quality parameters such as total organic carbon and decrease in dissolved oxygen due to decay of organic matter." An increase in organic matter is a polite way of describing MUD ! Upon initial fill, I picture a very muddied body of water. This will be from the rising waters mixing with the topsoil in the new expanded areas. I have great concerns for the trout and Musky. Trout need clear, cold, oxygenated water to survive. I personally fish for the Tiger Musky in Gross, and in the warmer months they move into the shallow weed beds to lie and wait to ambush smaller bait fish. How are they going to do this if the water is muddied? I would like the final EIS to address how the initial fill will effect these fish populations.</i></p> <p>Response #1690-4: Total organic carbon (TOC) is not a euphemism for mud. A component of TOC is dissolved and not visible. Wave action on the shoreline during filling, as well as during normal operations (i.e., reservoir fluctuations), can increase suspended solids near the shoreline due to erosion. However, this does not imply that the entire water body would be muddy. The decaying organic matter covered during initial first fill would depress dissolved oxygen locally but there should be refuge areas, particularly in the epilimnion, for fish to migrate to. The rugged/rocky topography and geology of the reservoir basin does not lend itself to high initial or prolonged sediment / turbidity issues due to filling and drawdown, especially in comparison to many other reservoirs in nearby watersheds.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>There should be little to no impact on water clarity after construction is completed. Many reservoirs in Colorado have dramatic drawdown and fill cycles each year and support excellent fisheries with clear water. The water clarity after construction should be similar to water clarity that now exists. FEIS Section 4.6.11 indicates that there would be a moderate beneficial effect on the reservoir fishery after the Project due to a larger volume and surface area for fish. Also, as new reservoirs first fill and flood terrestrial vegetation, there is usually a temporary increase in productivity for several years that can greatly benefit a fishery.</p> <p>Comment #1690-3 (ID 2409): <i>WILDLIFE – I have a few concerns with how this project will effect the existing wildlife populations. I believe there will be no noticeable effect on the big game species. They simply will move off during construction. I feel very sad about the small game, such as squirrels and rabbits. Most of them will be killed during the tree removal operation as they simply try to hide instead of run away. The hydro-axe machine will kill most of them as it mows down anything in its path. - Most birds will simply fly off to other areas, BUT IT WILL BE CRUCIAL TO NOT REMOVE ANY TREES DURING THE NESTING SEASON. Table 3.7-2 lists all the possible songbirds that nest around the reservoir. Can we be assured their active nests will not be destroyed? - This brings me to the Osprey. Why were they not listed as a Raptor living around the Gross reservoir area in table 3.7-1? I believe it was about 5 years ago a wildlife organization placed 2 nesting platforms near the Osprey point area. Ever since then we have had at least one nesting pair of Osprey each year raise their young in the nests they built on these platforms. I need an explanation in the final EIS as to why this bird has been left off the list and how they will be treated during the construction. Their nests are below the new high water mark, and almost directly across from the</i></p>

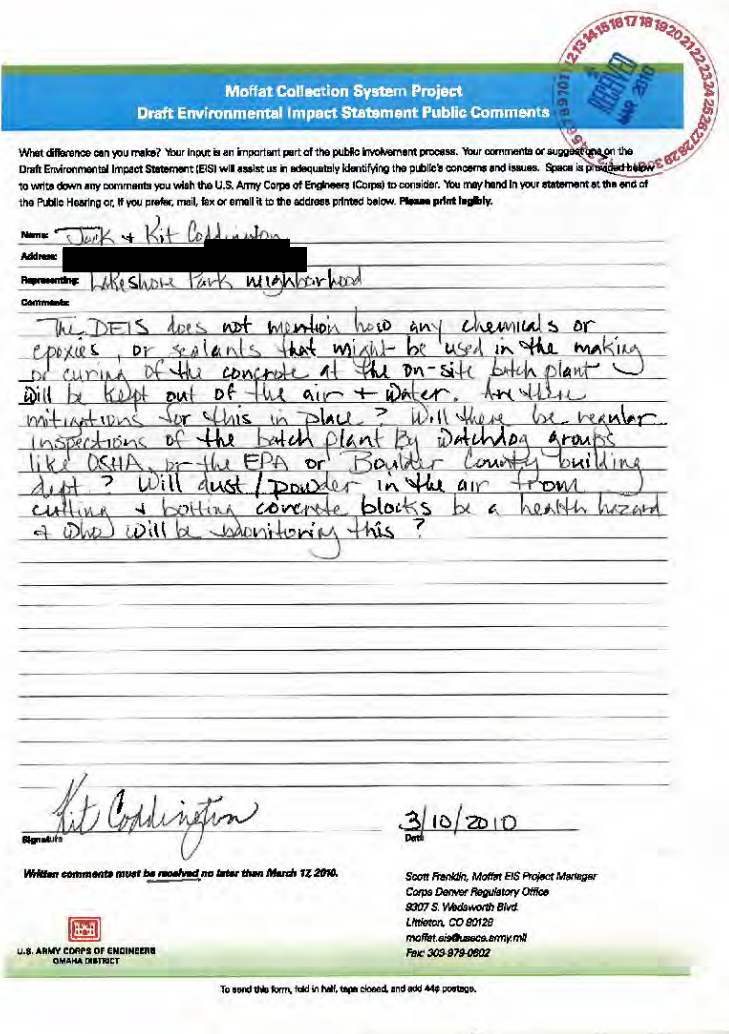
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>proposed rock quarry. Shouldn't there be special consideration to this species that has been successfully reintroduced to this area?</i></p> <p>Response #1690-3: The DEIS (Section 4.7.7) included mitigation measures to prevent destruction or disturbance of active bird nests.</p> <p>Osprey and bald eagle have been added to FEIS Table 3.9-1. Raptors Likely or Known to Occur in the Gross Reservoir Study Area. A discussion of the osprey nesting platform has been added to FEIS Section 3.9.</p> <p>Comment #1690-2 (ID 2408): <i>TRANSPORTATION - County Road 68 has been listed as necessary for the tree removal operation. Does this also include the section called "68 J" between the Lakeshore Park Subdivision and FR 359? If so, we have a problem with that as it goes right through the Lakeshore Park Subdivision. Can we be reassured this section of road won't be used for the tree removal process?</i></p> <p>Response #1690-2: The proposed tree removal work intends to follow CR 68 to Magnolia Road (CR 132) to SH 72. The tree removal plan does not include travelling on CR 68J near the Lakeshore Park subdivision.</p> <p>Comment #1690-1 (ID 2407): <i>All of the above comments mostly pertain to flaws in the DEIS. In closing, I would like to speak from my heart. I have lived in the foothills West of Boulder for the last 30 years, and Colorado for 36 years. My wife and I are very avid outdoor enthusiasts and enjoy all forms of outdoor recreation from hunting and fishing, to camping, hiking, backpacking, boating, snowshoeing, biking, and photography. Slowly, over the years, the</i></p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>steady influx of the growing population has begun to take away what once was so special. I call it "The Colorado Experience." Most places you go anymore are overcrowded. The air quality in the Front Range keeps getting worse. You can't return from a ski trip down I-70 without a 2-3 hour traffic delay. It's just not the same experience it once was. And this is all due to too many people. This proposed project will do nothing to maintain what "Colorado Experience" is left. Instead, it takes us in the opposite direction. It will divert more water from already hurting rivers on the Western Slope, create an environmental disaster in the dam building process, and promote more growth along the Front Range. If this project goes through, it could be "The straw that broke the camel's back"! This project really affects everyone in the State of Colorado. It's too bad we the people don't have a real say in it. I would bet if it were put to a vote to the people of the State of Colorado, it would unanimously be voted down. Please think of the citizens and wildlife of the Great State of Colorado when deciding on the fate of this project.</i></p> <p>Response #1690-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1691 Jack and Kit Coddington</p>		<p>Comment #1691-1 (ID 5136): <i>The DEIS does not mention how any chemicals or epoxies, or sealants that might be used in the making or curing of the concrete at the on-site batch plant will be kept out of the air & water. Are there mitigations for this in place? Will there be regular inspections of the batch plant by watchdog groups like OSHA or the EPA or Boulder County building dept.? Will dust/powder in the air from cutting & bolting concrete blocks be a health hazard & who will be monitoring this?</i></p> <p>Response #1691-1: The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare. A Corps' Section 404 Permit, if issued for one of the Moffat EIS alternatives, would require that construction activities conform to Colorado State Air Quality standards.</p> <p>For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with applicable noise ordinances.</p> <p>Concrete batch plants mix sand, aggregate, cement and water (either in a mix truck or a stationary mixer) to produce concrete. Particulate matter, consisting primarily of cement and pozzolan dust but including some aggregate and sand dust emissions, is the primary pollutant of concern. Particulate emissions from the Project's concrete batch plant would be controlled by devices such as baghouses (i.e., fabric filters used to filter exhaust air during pneumatic</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p style="text-align: center;">TAPE HERE</p> <div style="border: 1px solid black; width: 100px; height: 100px; margin: 20px auto; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; background: white;"></div> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%);">PLACE POSTAGE HERE</div> </div> <p style="text-align: center;">Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p style="text-align: center;">FOLD HERE</p> 	<p>transfers of material). The air emissions from the concrete batch plant have been estimated and incorporated in the summary tables of construction emissions presented in FEIS Section 5.13.</p> <p>Denver Water and its contractor would comply with all applicable Federal, State and local regulations related to proper handling and disposal of hazardous materials. A Materials Handling Plan would be developed to identify ways to properly handle and dispose of contaminated materials generated during the Project. For example, contractors would store fuel and other hazardous materials associated with construction activities away from water bodies and take appropriate precautions to avoid spilling hazardous materials or fuels during construction.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1693 Irene C. Cooke</p>	 <p>March 9, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin:</p> <p>I am shocked and disappointed with the numerous deficiencies in the Denver Water EIS for the Moffat Firing Project. Inadequate and often invalid data was used in the assessment of impacts. Cumulative impacts of the proposed action did not include past, present and reasonably foreseeable future impacts; the EPA requires that assessment of cumulative impacts include ALL disturbances, including compounded effects over the decades.</p> <p>EIS projections were based on hypothetical numbers (projections of 2016 conditions) intended to understate the impacts. Ignoring historic NATIVE flows in the calculations is clearly an error! Modeling was based on 1947 – 1991 data and did not include the critical years of 2002 and 2004. Data from those years is not only more recent, but also shows significant low water years.</p> <p>Using “average annual flows” is misleading. In the years following a drought OR in a wet year, using annual averages, Denver water could take MORE water from the Fraser River, in essence, drying up the river! Denver can dry up the Fraser River in other ways, too. For example, when “water restrictions” are imposed on customers, Denver can take ALL bypass flows. “Water restrictions” must be more stringently defined to apply only when households’ outside irrigation is prohibited.</p> <p>The concept of “environmental flows” was not addressed. This would include minimum guaranteed flows, proper monitoring of bypass flows and flushing flows. Every year, 9,000 tons of traction sand is used on the west side of Berthoud Pass at the headwaters of the Fraser Valley drainage. The EIS ignores the existing impact of low stream flows that fail to flush this sediment; it does not address the impact of even lower flows in the future.</p> <p>The EIS does not address impacts to fragile mountain tributaries of the Fraser River. Drying up these small streams in effect will kill precious wetlands in the high country, but there is no mention of this impact.</p> <p>The EIS does not address the impacts of railroad discharge permits. Water from the Moffat Tunnel often contains heavy metals that will be discharged into a lower volume stream, increasing the concentration of these poisons. How will the effects on fish and other wildlife, let alone humans be avoided, minimized or mitigated? There is no mention of the reasonably foreseeable impacts of runoff from hillsides where trees are dying as a result of the recent pine beetle infestation. As much as 90% of the lodgepole pine forest in Grand County may be killed and the resulting runoff has not been addressed in the EIS.</p> <p>The “no action” alternative does not have “no impact” on the Fraser River. In the “preferred alternative” approximately 80% of Fraser River native flows can be diverted. However, the “no action”</p>	<p>Comment #1693-9 (ID 2079): <i>I am shocked and disappointed with the numerous deficiencies in the Denver Water EIS for the Moffat Firing Project. Inadequate and often invalid data was used in the assessment of impacts. Cumulative impacts of the proposed action did not include past, present and reasonably foreseeable future impacts; the EPA requires that assessment of cumulative impacts include ALL disturbances, including compounded effects over the decades.</i></p> <p>Response #1693-9: CEQ interprets NEPA regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the action and its alternatives may have a continuing, additive and significant relationship to those effects. The environmental analysis required under NEPA is forward-looking, in that it focuses on the potential impacts of the proposed action that an agency is considering. Thus, review of past actions is required to the extent that this review informs agency decision-making regarding the proposed action.</p> <p>The Corps has considered that past water-related actions, such as impoundments and diversions, have affected the Colorado River and are accounted for in the analysis of Current Conditions. The DEIS catalogues a list of past projects in Section 5.2. These projects were included in the Platte and Colorado Simulation Model (PACSM) to sufficiently account for and represent past actions. In addition, effects of past actions on existing flows are accounted for and disclosed in the DEIS Chapter 3 Affected Environment, specifically Section 3.1 Hydrology.</p> <p>The Corps provided additional information on past actions in FEIS Section 4.2. This was accomplished by</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>alternative is almost as bad: the current 60% diversion of the Fraser River in Tabernash could be increased to 72%.</p> <p>Finally, Denver Water's EIS suggests that any mitigation will be handled in a "private agreement" with Grand County. Any separate enhancements or "payment in lieu of mitigation" is outrageous. It delegates the responsibilities of the Corps to private parties and ignores the concerns of citizens and taxpayers.</p> <p>The primary responsibility of the Corps is the waters of the people, the environment and to future generations. We want our grandchildren to know the "mighty Upper" Colorado River and the beautiful Fraser River. Please, please protect the life and health of the Fraser and Colorado Rivers.</p> <p>Sincerely,</p> <p><i>Heidi Cooke</i></p>	<p>qualitatively assessing the environment approximately 200 feet upstream and downstream of representative Denver Water diversions. The upstream conditions were meant to coincide with pre-diversion conditions. A combination of streams with and without bypass flows were evaluated (e.g., St. Louis Creek, Jim Creek, etc.) using historic photo documentation and aerial photography. Additionally, FEIS Section 3.1.5 was expanded to include a discussion of virgin flows and the percentage of monthly virgin flows diverted by Denver Water. This allows the reader to compare natural flows with past diversions at each of Denver Water's diversions locations modeled in PACSM.</p> <p>Comment #1693-8 (ID 2078): <i>EIS projections were based on hypothetical numbers (projections of 2016 conditions) intended to understate the impacts. Ignoring historic NATIVE flows in the calculations is clearly an error! Modeling was based on 1947 - 1991 data and did not include the critical years of 2002 and 2004. Data from those years is not only more recent, but also shows significant low water years.</i></p> <p>Response #1693-8: The impact analysis was revised in the FEIS to present total environmental effects based on a comparison of Current Conditions (2006) and Full Use with a Project Alternative (2032). FEIS Chapter 4 displays the total environmental effects of the Moffat Project alternatives in combination with other RFFAs based on a comparison of the following scenarios.</p> <ul style="list-style-type: none"> • Current Conditions (2006) reflects the related current administration of the Colorado and South Platte river basins, demands, infrastructure, and operations. Under the Current Conditions (2006) scenario, Denver Water's existing average annual demand is 285,000 AF/yr.

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<ul style="list-style-type: none"> Full Use with a Project Alternative (2032) reflects conditions in Denver Water's system when the Moffat Project is completed and in full use in 2032. This scenario reflects each action alternative in combination with other RFFAs. Under this scenario, the Moffat Project would be providing 18,000 AF/yr of new firm yield. The FEIS includes an updated 2032 water demand projection for Denver Water. <p>Full Use of the Existing System reflects the best available projections of demand and supply consistent with current standards of water resource planning. Full Use of the Existing System includes RFFAs including growth in Denver Water's average annual demand to 345,000 AF/yr, which Denver Water can achieve with their existing system. Denver Water's existing system is capable of meeting an average annual demand of 345,000 AF/yr, therefore, the hydrologic effects associated with additional diversions that would occur as Denver Water's demand grows to that level are not an impact of the proposed Moffat Project. Denver Water is not responsible for mitigating for the effects of other reasonably foreseeable actions since they are not caused by the Moffat Project. FEIS Chapter 5 presents the effects attributable to the Moffat Project based on a comparison of Full Use of the Existing System and Full Use with a Project Alternative (2032).</p> <p>To provide more information on the impacts of past and current diversions on stream channels and historic native flows, FEIS Section 3.1 was revised to provide a discussion of natural flows in the Fraser and Williams Fork river basins and the percentage of natural flow Denver Water is estimated to divert under Current Conditions, Full Use of the Existing System and each of the Moffat Project alternatives.</p> <p>The model study period used in the DEIS (from 1947 through 1991) provides a broad range of average, wet,</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>and dry flow conditions for evaluating hydrologic impacts. The potential of extending the study period and/or using additional periods for comparative analyses was considered in relation to whether these alternative hydrologic inputs would change conclusions regarding the yield of the Moffat system and/or change conclusions related to effects on hydrologic and other resource areas. With regard to inclusion of more recent hydrology, Denver Water would not divert additional water due to the proposed Moffat Project in drought years like 2002 because Denver Water would have already diverted the maximum amount of water physically and legally available under their existing water rights without additional storage in their system. Denver Water's analysis also concluded that, for Denver Water's system, the mid-1950's drought is a more severe drought period than the recent drought. In other words, given full-use water demands, supplies, and facilities, there would be less water in Denver Water's storage at the end of the 1950's drought than at the end of 2002. The model study period used in the DEIS also addressed the carry-over and recovery effects of additional Denver Water diversions in wet years following dry years like 2002 and 2003. The DEIS study period includes several series of dry years followed by wet years, which illustrate the effects of increased diversions to refill storage. For example, the DEIS study period includes the mid-1950's drought followed by 1957 (a wet year), 1963 and 1964 (dry years) followed by 1965 (wet year), and 1981 (dry year) followed by several wet years in the mid-1980's. These sequences of years allow for an evaluation of impacts associated with diverting additional water in wet years following dry years.</p> <p>The model study period is suitable for estimating hydrologic effects associated with the EIS alternatives for both direct effects and cumulative effects because it includes a broad range of average, wet, and dry years, and sequences of years that include dry years</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>followed by wet years. Extension of the modeling period to include additional dry years would not substantially change the range of hydrologic conditions or the predicted impacts to flows as a result of the proposed Moffat Project. In summary, modifications to the modeled study period is not warranted.</p> <p>Comment #1693-7 (ID 2077): <i>Using "average annual flows" is misleading. In the years following a drought OR in a wet year, using annual averages, Denver water could take MORE water from the Fraser River, in essence, drying up the river! Denver can dry up the Fraser River in other ways, too. For example, when "water restrictions" are imposed on customers, Denver can take ALL bypass flows. "Water restrictions" must be more stringently defined to apply only when households' outside irrigation is prohibited.</i></p> <p>Response #1693-7: A combination of daily, monthly and annual hydrologic data was used for evaluations of resources dependent on flows or reservoir storage contents and levels. Average monthly and annual summaries of stream flows, diversions, reservoir contents, surface elevations, and surface areas for average, wet, and dry conditions were used to support general characterizations of hydrologic changes associated with each Moffat Project alternative. Daily data were used in resource assessments where the magnitude or value of the resource is especially sensitive to daily hydrologic changes and where the use of average, wet, and dry monthly values would mask the severity of the effects on those resources. Daily data was utilized to evaluate effects on several resources, including surface water, aquatic resources, stream morphology, recreation, floodplains, riparian and wetlands areas, wildlife and special status species, and water quality (see DEIS Section 4.1, subheading Use of Daily and Monthly PACSM Data for Resource</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Evaluations). Daily data were used to generate flow duration curves and daily hydrographs, and to determine the frequency and magnitude of daily flow changes (see DEIS Appendices H-4, H-5 and H-6).</p> <p>Denver Water's ability to reduce bypass flows in accordance with the severity of restrictions it places on its customers is provided under the 1970 Bureau of Sport Fisheries Stipulation and the 1992 Clinton Agreement. This agreement is a component of Denver Water's existing system and operations, not the proposed Moffat Project. Paragraph 5 of the Stipulations to the 1970 Amendatory Decision allows the Denver Water Board to reduce bypasses at each of the subject streams (Fraser River, Vasquez Creek, St. Louis Creek, and Ranch Creek) whenever it becomes necessary for the Board to impose restrictions due to insufficient water supplies. The 1992 Clinton Agreement modified the Stipulations to the 1970 Amendatory Decision, such that Denver Water would only reduce bypass flows if mandatory restrictions were imposed on its customers, provided the reduced bypass flows would not result in mandatory restrictions on indoor use to Grand County water users or if mandatory restrictions on indoor use were placed on Denver Water customers. Since the Proposed Action increases Denver Water's firm yield, system reliability and flexibility, the frequency and magnitude of bypass flow reductions, if needed, could potentially decrease.</p> <p>Comment #1693-6 (ID 2076): <i>The concept of "environmental flows" was not addressed. This would include minimum guaranteed flows, proper monitoring of bypass flows and flushing flows. Every year, 9,000 tons of traction sand is used on the west side of Berthoud Pass at the headwaters of the Fraser Valley drainage. The EIS ignores the existing impact of low stream flows that fail to flush this sediment; it does not address the impact of even lower</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>flows in the future.</i></p> <p>Response #1693-6: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Regarding low flow conditions, the proposed Moffat Project would not affect low flows because there would be no additional diversions in dry years and late in the summer due to the Moffat Project. In dry years and late in the summer, Denver Water would have already diverted the maximum amount physically and legally available under their existing water rights and infrastructure without additional storage in their system, in which case, there would be no further reduction in low flows due to the proposed Moffat Project. Under the proposed Moffat Project, additional diversions through the Moffat Tunnel would occur primarily during runoff months in May, June and July (see Table H-3.1 in DEIS Appendix H). The environmental effects of additional diversions attributable to the Moffat Project were evaluated and determined to be minimal to moderate depending on the resource.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>Comment #1693-5 (ID 2075): <i>The EIS does not address impacts to fragile mountain</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>tributaries of the Fraser River. Drying up these small streams in effect will kill precious wetlands in the high country, but there is no mention of this impact.</i></p> <p>Response #1693-5: More information has been added to the FEIS regarding impacts to Fraser Valley tributaries. The affected stream reaches in the Fraser Valley include 20.5 miles of streams below diversions with no bypass flows and 72.2 miles below diversions with bypass flows, including 27.7 miles in the Fraser River. Many of the streams that lack bypass flows are relatively short, which is why the miles of streams with no bypass flows is much less even though the number of these streams is larger.</p> <p>The current diversions capture all or most of the natural flow in the tributaries that lack bypass flows, for large portions of the year. However, about two-thirds of the total annual flow occurs during June and July when the percentage of water diverted is lower, and these high flows during the growing season appear to help maintain the existing riparian vegetation. In addition, many of these streams exhibit recovery downstream of the diversion from groundwater discharge or tributary flows (McCarthy 2008), and wetlands and riparian vegetation along the streams may be supported by groundwater. Additional analysis of the existing conditions of the Fraser and Williams Fork tributaries has been added to FEIS Section 4.6.8 and a comparison of flows under Current Conditions and with each of the alternatives has been added to FEIS Sections 3.8.5 and 5.8.1.2. Diversions would increase at all of the modeled nodes for the Fraser River and Williams Fork tributaries, including increases in diversion during both periods of high flows and low flows.</p> <p>Comment #1693-4 (ID 2074): <i>The EIS does not address the impacts of railroad</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>discharge permits. Water from the Moffat Tunnel often contains heavy metals that will be discharged into a lower volume stream, increasing the concentration of these poisons. How will the effects on fish and other wildlife, let alone humans be avoided, minimized or mitigated?</i></p> <p>Response #1693-4: Additional water quality analysis, including review of the Moffat Tunnel NPDES permit, was performed for the Fraser River. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1693-3 (ID 2073): <i>There is no mention of the reasonably foreseeable impacts of runoff from hillsides where trees are dying as a result of the recent pine beetle infestation. As much as 90% of the lodgepole pine forest in Grand County may be killed and the resulting runoff has not been addressed in the EIS.</i></p> <p>Response #1693-3: The effects as a result of pine beetle infestation alone would not impact channel morphology, however forest lost and vegetation community changes from the beetle could potentially have several impacts. Pine beetle kills could result in decreased sediment supply as dying forests decrease overhead shading resulting in increased groundcover and mid-story vegetation, therefore decreasing erosion potential. Pine beetle could also result in increased sediment supply if a large fire were to occur, fueled by the killed timber increasing erosion potential.</p> <p>Comment #1693-2 (ID 2072): <i>The "no action" alternative does not have "no impact" on the Fraser River. In the "preferred alternative" approximately 80% of Fraser River native flows can be diverted. However, the "no action alternative is almost as bad: the current 60% diversion of the Fraser River in Tabernash could be increased to 72%.</i></p>

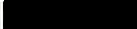



Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1693-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1693-1 (ID 2071): <i>Finally, Denver Water's EIS suggests that any mitigation will be handles in a "private agreement" with Grand County. Any separate enhancements or "payment in lieu of mitigation" is outrageous. It delegates the responsibilities of the Corps to private parties and ignores the concerns of citizens and taxpayers.</i></p> <p>Response #1693-1: The Corps will include specific mitigation measures that are enforceable through a Section 404 Permit, if issued. CDPHE will also include specific water quality mitigation measures that are enforceable through a Section 401 Certification. USFWS will include specific requirements to protect threatened and endangered species that are enforceable through a BO. In addition, Denver Water has entered into three agreements that would enhance the existing environment and provide additional protections: CRCA, LBD Cooperative Effort, and Fish and Wildlife Enhancement Plan, copies of which are provided in FEIS Appendix M. Each of these plans will be implemented through permanent agreements between the parties. The Corps will consider these agreements, along with all "reasonably foreseeable future actions" in its decision process regarding the proposed Moffat Project. These agreements are not intended to mitigate the impacts of the proposed Project; instead, the purpose is to improve existing conditions of aquatic environments in the Colorado River Basin should Gross Reservoir be enlarged.</p> <p>Comment #1693-10 (ID 2080): <i>The primary responsibility of the Corps is the waters of</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>the people, the environment and to future generations. We want our grandchildren to know the "mighty Upper" Colorado River and the beautiful Fraser River. Please, please protect the life and health of the Fraser and Colorado Rivers.</i></p> <p>Response #1693-10: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1694 Irene C. Cooke</p>	<div style="text-align: center;">    </div> <p style="text-align: center;">March 9, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Denver's City Fathers had the foresight years ago to acquire water rights to provide for public need. In those days, environmental impacts were not considered. We took water from where it was abundant and diverted it to where it was needed without considering the consequences. It is now obvious that diversions from the upper Fraser River Valley have had a significant impact on everything downstream -- water temperature, water quality, wildlife habitat—from Winter Park to Grand Lake to Kremmling and beyond.</p> <p>Denver's current leadership needs to have the foresight to implement stringent controls on the use of this finite resource. There is not an endless supply. We cannot continue to deplete and degrade Grand County's waters. Future use requires careful planning and monitoring.</p> <p>To protect future generations the Moffat Firing Project EIS must provide for adaptive management that requires careful monitoring and a proactive response to maintain the health of the river over the long term. This would include a process for independent monitoring of water quality and impacts on aquatic life as well as funding for avoiding, minimizing or mitigating impacts in response to needs identified by monitoring. The Stream Management Plan developed by expert consultants for Grand County is a scientifically reliable means of insuring that diversions, both current and future, do not kill the Fraser and Colorado River ecosystems.</p> <p>The Corps' main responsibility is neither to Grand County nor to Denver Water, but to the environment and to future generations. Please protect the life and health of the Fraser and Colorado Rivers. Please require Denver Water to go back to the drawing board -- to develop and implement conservation before further degrading Western Slope environments.</p> <p>Sincerely, </p>	<p>Comment #1694-5 (ID 2106): <i>Denver's City Fathers had the foresight years ago to acquire water rights to provide for public need. In those days, environmental impacts were not considered. We took water from where it was abundant and diverted it to where it was needed without considering the consequences. It is now obvious that diversions from the upper Fraser River Valley have had a significant impact on everything downstream -- water temperature, water quality, wildlife habitat—from Winter Park to Grand Lake to Kremmling and beyond. Denver's current leadership needs to have the foresight to implement stringent controls on the use of this finite resource. There is not an endless supply. We cannot continue to deplete and degrade Grand County's waters. Future use requires careful planning and monitoring.</i></p> <p>Response #1694-5: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1694-4 (ID 2105): <i>To protect future generations the Moffat Firing Project EIS must provide for adaptive management that requires careful monitoring and a proactive response to maintain the health of the river over the long term. This would include a process for independent monitoring of water quality and impacts on aquatic life as well as funding for avoiding, minimizing or mitigating impacts in response to needs identified by monitoring.</i></p> <p>Response #1694-4: The Corps requires that impacts to the aquatic environment must first be avoided or minimized. Mitigation is then used to compensate for residual impacts after impacts have been reduced through avoidance and minimization. Appropriate conceptual</p>

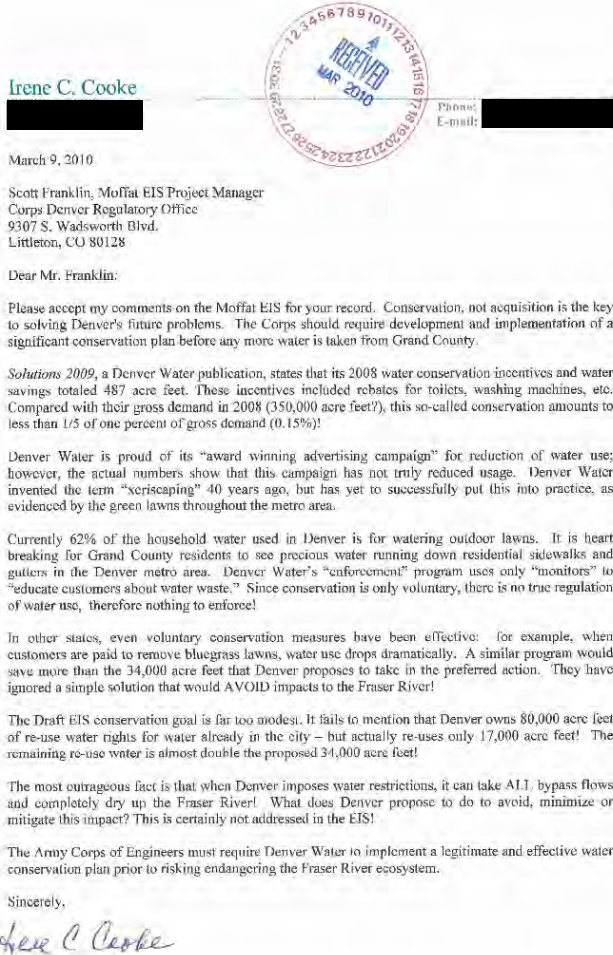
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>mitigation components were incorporated into FEIS Appendix M and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>Comment #1694-3 (ID 2104): <i>The Stream Management Plan developed by expert consultants for Grand County is a scientifically reliable means of insuring that diversions, both current and future, do not kill the Fraser and Colorado River ecosystems.</i></p> <p>Response #1694-3: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Comment #1694-2 (ID 2103): <i>The Corps' main responsibility is neither to Grand County nor to Denver Water, but to the environment and to future generations. Please protect the life and health of the Fraser and Colorado Rivers.</i></p> <p>Response #1694-2: The Corps notes the comment.</p> <p>Comment #1694-1 (ID 2102): <i>Please require Denver Water to go back to the drawing board -- to develop and implement conservation before further degrading Western Slope environments.</i></p> <p>Response #1694-1: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1695 Irene C. Cooke</p>	 <p>Irene C. Cooke</p> <p>March 9, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin:</p> <p>Please accept my comments on the Moffat EIS for your record. Conservation, not acquisition is the key to solving Denver's future problems. The Corps should require development and implementation of a significant conservation plan before any more water is taken from Grand County.</p> <p><i>Solutions 2009</i>, a Denver Water publication, states that its 2008 water conservation incentives and water savings totaled 487 acre feet. These incentives included rebates for toilets, washing machines, etc. Compared with their gross demand in 2008 (350,000 acre feet?), this so-called conservation amounts to less than 1/5 of one percent of gross demand (0.15%)!</p> <p>Denver Water is proud of its "award winning advertising campaign" for reduction of water use; however, the actual numbers show that this campaign has not truly reduced usage. Denver Water invented the term "xeriscaping" 40 years ago, but has yet to successfully put this into practice, as evidenced by the green lawns throughout the metro area.</p> <p>Currently 62% of the household water used in Denver is for watering outdoor lawns. It is heart breaking for Grand County residents to see precious water running down residential sidewalks and gutters in the Denver metro area. Denver Water's "enforcement" program uses only "monitors" to "educate customers about water waste." Since conservation is only voluntary, there is no true regulation of water use, therefore nothing to enforce!</p> <p>In other states, even voluntary conservation measures have been effective: for example, when customers are paid to remove bluegrass lawns, water use drops dramatically. A similar program would save more than the 34,000 acre feet that Denver proposes to take in the preferred action. They have ignored a simple solution that would AVOID impacts to the Fraser River!</p> <p>The Draft EIS conservation goal is far too modest. It fails to mention that Denver owns 80,000 acre feet of re-use water rights for water already in the city - but actually re-uses only 17,000 acre feet! The remaining re-use water is almost double the proposed 34,000 acre feet!</p> <p>The most outrageous fact is that when Denver imposes water restrictions, it can take ALL bypass flows and completely dry up the Fraser River! What does Denver propose to do to avoid, minimize or mitigate this impact? This is certainly not addressed in the EIS!</p> <p>The Army Corps of Engineers must require Denver Water to implement a legitimate and effective water conservation plan prior to risking endangering the Fraser River ecosystem.</p> <p>Sincerely, <i>Irene C. Cooke</i></p>	<p>Comment #1695-1 (ID 2122): <i>Please accept my comments on the Moffat EIS for your record. Conservation, not acquisition is the key to solving Denver's future problems. The Corps should require development and implementation of a significant conservation plan before any more water is taken from Grand County. Solutions 2009, a Denver Water publication, states that its 2008 water conservation incentives and water savings totaled 487 acre feet. These incentives included rebates for toilets, washing machines, etc. Compared with their gross demand in 2008 (350,000 acre feet?), this so-called conservation amounts to less than 115 of one percent of gross demand (0.15%)! Denver Water is proud of its "award winning advertising campaign" for reduction of water use; however, the actual numbers show that this campaign has not truly reduced usage. Denver Water invented the term "xeriscaping" 40 years ago, but has yet to successfully put this into practice, as evidenced by the green lawns throughout the metro area. Currently 62% of the household water used in Denver is for watering outdoor lawns. It is heart breaking for Grand County residents to see precious water running down residential sidewalks and gutters in the Denver metro area. Denver Water's "enforcement" program uses only "monitors" to "educate customers about water waste." Since conservation is only voluntary, there is no true regulation of water use, therefore nothing to enforce! In other states, even voluntary conservation measures have been effective: for example, when customers are paid to remove bluegrass lawns, water use drops dramatically. A similar program would save more than the 34,000 acre feet that Denver proposes to take in the preferred action. They have ignored a simple solution that would AVOID impacts to the Fraser River! The Draft EIS conservation goal is far too modest. It fails to mention that Denver owns 80,000 acre feet of re-use water rights for water already in the city - but actually re-uses only 17,000 acre feet! The remaining re-use water is</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>almost double the proposed 34,000 acre feet! The most outrageous fact is that when Denver imposes water restrictions, it can take ALL bypass flows and completely dry up the Fraser River! What does Denver propose to do to avoid, minimize or mitigate this impact? This is certainly not addressed in the EIS! The Army Corps of Engineers must require Denver Water to implement a legitimate and effective water conservation plan prior to risking endangering the Fraser River ecosystem.</i></p> <p>Response #1695-1: The decrease in water use in 2008 compared with pre-drought levels cannot be extrapolated by itself. Single year water use is influenced by temporal conditions which are not useful in long-term water demand forecasting. For instance, recollection of the previous drought, declining economic conditions and the quantity or timeliness of precipitation was an influence on water use in 2008.</p> <p>Denver Water has focused conservation efforts on indoor and outdoor uses and set an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought. These savings are evenly split between outdoor and indoor reductions in use. As shown in FEIS Table 1-1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>All water delivered by Denver Water to its customers is classified as reusable or non-reusable. Reusable water can be used and reused to extinction. Use of reusable water increases Denver Water's system supply and reduces the amount of water diverted from other components of the system. The main sources of reusable water in Denver Water's Collection System are the Blue River water delivered through the Roberts Tunnel, Fraser River water diverted by the Meadow Creek system (the only reusable water associated with the Moffat Collection System), and transferred agricultural water rights on the East Slope. The Metro Reclamation District Wastewater Treatment Plant (Metro WWTP) and the Littleton–Englewood (Bi-City) WWTP are the primary return points of Denver Water's reusable water. Denver Water keeps track of reusable return flows and currently uses, or is planning to use, most of its reusable supplies through river exchanges, transfers to gravel pits, and to supply water for the non-potable recycling project. As shown in FEIS Table 2-9, approximately 7,600 AF/yr on average of unused return flows would be available primarily in the winter months, when Denver Water's customer demands, non-potable demands, and exchange potential are relatively low. The amount of unused reusable supplies available varies considerably from year to year, ranging from 0 AF to as much as 37,500 AF/yr. Refer to FEIS Section 1.3.1 (subheading, Non-Potable Recycling Facility).</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Denver Water is in the process of completing a recycling project that will use reusable supplies to meet an annual demand of 17,500 AF. Denver Water is also in the process of constructing 30,000 AF of gravel pit reservoir storage downstream of Denver. The storage facilities would be used to manage reusable supplies by storing excess reusable supplies in time of surplus, and releasing the stored reusable supplies at times of shortage. The gravel pits would be used for the following purposes:</p> <ol style="list-style-type: none"> 1. Perform exchanges to upstream facilities. In an exchange, reusable water is added to a stream at a downstream location to enable diversion of a like amount of water at an upstream location. 2. Deliver the reusable water to the Recycling Plant, treat the water, and distribute it for non-potable uses. The recycling plant requires gravel pit storage to supply reusable water to the Recycle Plant, via exchange, when reusable water is not available at Metro WWTP or the Bi-City WWTP. 3. Deliver an annual supply of 5,000 AF of reusable water to South Adams County Water and Sanitation District (per agreements). 4. Use reusable water to augment raw water systems in the Denver Metropolitan area (e.g., augment the wells used to supply water to Denver parks). The reusable water needed to support these projects was included in the PACSM simulations and therefore less reusable water is available for a new project. These projects were not on-line from 1998 to 2008 as noted in the comment, but once these projects are completed, the average annual available unused reusable effluent is estimated to be approximately 7,600 AF. This is an example of why it is inappropriate to simply rely on historical values to draw conclusions.

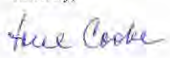
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>As shown in DEIS Table 2-9, the estimated 7,600 AF of average annual unused reusable water ranges from to 0 AF some years, to as high as approximately 37,500 AF in one year. The highest year of unused return flows does occur in a dry year, but many other dry years and periods have less than the 6,700 AF average. Project alternatives that included 5,000 AF of yield using the reusable return flows were analyzed. Alternative that included more than 5,000 AF would have been even more expensive on a cost per AF basis. Also note that with PACSM, Denver Water's unused reusable return flows are used and reused to extinction. On average, Denver Water has 8,000 AF of excess reusable effluent – this is the amount used when developing Alternatives 8a and 10a for the DEIS.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1696 Irene C. Cooke</p>	<div style="text-align: center;">  <p>March 9, 2010</p> </div> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>As a taxpayer and resident of the Fraser Valley, I am writing to express my concern about the Moffat Firing Project EIS. Denver Water has not adequately addressed the issue of impacts to water supply and wastewater treatment. Here are two of the many items that have not been adequately addressed:</p> <p><u>Public Water Supply:</u> Water and wastewater customers in the Fraser Valley will bear an added and unfair burden for the increase in Denver Water's diversions. Much of the population in the Fraser Valley depends on the Fraser River for public water supply. The decrease in volume of the Fraser River will diminish water quality and what is left of the water supply will require additional treatment to make it potable for household consumption, thus increasing costs.</p> <p><u>Public Wastewater Treatment:</u> Local wastewater treatment facilities closely monitor the effluent being discharged into the Fraser River. Our citizens have financed new treatment facilities in an attempt to keep up with growth and minimize impacts to the river. Citizens of the Fraser Valley have spent more than \$20 million in the past 10 years to be able to discharge water into the already dewatered Fraser River. But the Moffat Firing Project will further increase wastewater treatment costs. To treat wastewater, bacteria must have a certain minimum (higher) temperature to function properly. Maintaining the correct temperature for treatment is an added expense in our climate. We can monitor discharge of nitrates and other pollutants; monitoring and controlling water temperature of effluent, however, would be an added expense that the taxpayers should not bear. The EIS does not adequately address impacts of wastewater discharge into the lower volume, higher temperature river.</p> <p>Further, the main depletions from the Fraser River will be in May through July, the same months that Windy Gap pumps to the Colorado Big Thompson diversion AND the same months when wastewater treatment plants have high discharge due to infiltration. Spring runoff from livestock fields adds to the nutrient concentration. All of these factors impact the Three Lakes waters, increasing the vegetation and degrading water quality even more!</p> <p>The Fraser Valley is a popular area for tourism and second homes. The EIS does not adequately address the cumulative impacts of growth in population and tourism with the impacts of their proposed additional diversion. Wastewater discharge from large tourism facilities with private treatment systems (YMCA of the Rockies, Devils Thumb Ranch, Young Life, C Lazy U Ranch and others) also has an impact that is not addressed in the EIS.</p>	<p>Comment #1696-7 (ID 2444): <i>As a taxpayer and resident of the Fraser Valley, I am writing to express my concern about the Moffat Firing Project EIS. Denver Water has not adequately addressed the issue of impacts to water supply and wastewater treatment. Here are two of the many items that have not been adequately addressed:</i></p> <p>Response #1696-7: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1696-6 (ID 2443): <i>Public Water Supply: Water and wastewater customers in the Fraser Valley will bear an added and unfair burden for the increase in Denver Water's diversions. Much of the population in the Fraser Valley depends on the Fraser River for public water supply. The decrease in volume of the Fraser River will diminish water quality and what is left of the water supply will require additional treatment to make it potable for household consumption, thus increasing costs.</i></p> <p>Response #1696-6: Additional evaluation of water quality for the Fraser River was performed. Please see FEIS Sections 4.6.2 and 5.2. As parameters of concern are well below drinking water standards, additional water treatment is not foreseen to meet existing Federal and State Safe Drinking Water Standards.</p> <p>Comment #1696-5 (ID 2442): <i>Public Wastewater Treatment: Local wastewater treatment facilities closely monitor the effluent being discharged into the Fraser River. Our citizens have financed new treatment facilities in an attempt to keep up with growth and minimize impacts to the river. Citizens of the Fraser Valley have spent more than \$20 million in the past 10 years to be able to discharge</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>I am on the Board of Directors of the Tabernash Meadows Water and Sanitation District and am all to aware of the challenges of small local water and wastewater management. Denver Water has not mentioned the impacts that dewatering the Fraser River will have on the water and sanitation needs of the citizens of Grand County.</p> <p>The Denver Water EIS has ignored or misrepresented the numerous impacts of the proposed firming project, to the detriment of the rivers and the citizens of Grand County. Please require additional assessments of these and other cumulative impacts for Denver Water's EIS.</p> <p>Sincerely,</p> 	<p><i>water into the already dewatered Fraser River. But the Moffat Firing Project will further increase wastewater treatment costs. To treat wastewater, bacteria must have a certain minimum (higher) temperature to function properly. Maintaining the correct temperature for treatment is an added expense in our climate. We can monitor discharge of nitrates and other pollutants; monitoring and controlling water temperature of effluent, however, would be an added expense that the taxpayers should not bear. The EIS does not adequately address impacts of wastewater discharge into the lower volume, higher temperature river.</i></p> <p>Response #1696-5: Additional water quality analysis was performed for the Fraser River, including a review of all WWTP NPDES permits. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1696-4 (ID 2441): <i>Further, the main depletions from the Fraser River will be in May through July, the same months that Windy Gap pumps to the Colorado Big Thompson diversion AND the same months when wastewater treatment plants have high discharge due to infiltration. Spring runoff from livestock fields adds to the nutrient concentration. All of these factors impact the Three Lakes waters, increasing the vegetation and degrading water quality even more!</i></p> <p>Response #1696-4: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1696-3 (ID 2440): <i>The Fraser Valley is a popular area for tourism and second homes. The EIS does not adequately address the cumulative impacts of growth in population and tourism with the impacts of their proposed additional diversion. Wastewater discharge from large tourism</i></p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>facilities with private treatment systems (YMCA of the Rockies, Devils Thumb Ranch, Young Life, C Lazy U Ranch and others) also has an impact that is not addressed in the EIS.</i></p> <p>Response #1696-3: The West Slope agricultural and recreational economies were further addressed in FEIS Section 5.19.</p> <p>The DEIS considered all major surface water NPDES permits in the affected basins. The FEIS includes all surface water discharges (major and minor) regulated by NPDES permits in the nutrient analysis. Additionally, the FEIS evaluates potential impacts to all surface water discharges (major and minor) regulated by NPDES permits in basins where additional water withdrawal would occur. Whether a system is publicly or privately owned does not factor in to being regulated by NPDES.</p> <p>Comment #1696-2 (ID 2439): <i>I am on the Board of Directors of the Tabernash Meadows Water and Sanitation District and am all too aware of the challenges of small local water and wastewater management. Denver Water has not mentioned the impacts that dewatering the Fraser River will have on the water and sanitation needs of the citizens of Grand County.</i></p> <p>Response #1696-2: Additional analysis was performed on the Fraser River, including using daily flow data to determine potential changes to WWTPs. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1696-1 (ID 2438): <i>The Denver Water EIS has ignored or misrepresented the numerous impacts of the proposed firming project, to the detriment of the rivers and the citizens of Grand</i></p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>County. Please require additional assessments of these and other cumulative impacts for Denver Water's EIS.</i></p> <p>Response #1696-1: As a result of comments received on the DEIS new analysis was conducted for the following resources in the FEIS: water quality (FEIS Section 5.2), groundwater (FEIS Section 5.4), aquatic biological resources (FEIS Section 5.11), wetlands and riparian areas (FEIS Section 5.8), wildlife (FEIS Section 5.9), special status species (FEIS Section 5.10), air quality (FEIS Section 5.13), and socioeconomics (FEIS Section 5.19). Please refer to the reorganized format of the FEIS, which provides a revised baseline for more detailed discussion of Project-related effects. FEIS Chapter 4 now describes the total environmental effects (the Project in combination with other reasonably foreseeable projects) that are anticipated to occur between Current Conditions (2006) and Full Use with a Project Alternative (2032). FEIS Chapter 5 describes Project-related effects between Full Use of the Existing System and Full Use with a Project Alternative (2032).</p>





Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1697 Irene C. Cooke</p>	<div>  <p>Irene C. Cooke</p> <p>March 9, 2010</p> <p>Scott Franklin, Moffat FIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> </div> <p>In 2007, the U. S. Army Corps of Engineers (Corps) participated in the 10th International River Symposium and International Environmental Flows Conference in Brisbane, Australia. That conference produced summary findings and a global action agenda to address the urgent need to protect rivers globally. The concept of "environmental flows" is key to that agenda. Environmental flows "describe the quantity, timing, and quality of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems."</p> <p>The Moffat Firing Project is a prime opportunity for the Corps needs to apply the principles of the Brisbane Action Agenda. For the sake of the Fraser River, please ACT on these principles!</p> <p>Estimate environmental flow needs immediately. Scientifically credible methodologies quantify the variable - not just minimum - flows needed for each water body by explicitly linking environmental flows to specific ecological functions and social values. Recent advances enable rapid, region-wide, scientifically credible environmental flow assessments. Denver Water should be required to address environmental flow needs.</p> <p>Integrate environmental flow management into every aspect of land and water management. Environmental flow assessment and management should be a <i>basic requirement</i> of Integrated Water Resource Management (IWRM); environmental impact assessment (EIA); strategic environmental assessment (SEA); infrastructure and industrial development and certification; and land-use, water-use, and energy-production strategies. Environmental flow management must be included in Denver Water's EIS.</p> <p>Establish institutional frameworks. Consistent integration of environmental flows into land and water management requires laws, regulations, policies and programs that: (1) recognize environmental flows as integral to sustainable water management, (2) establish precautionary limits on allowable depletions and alterations of natural flow, (3) treat ground water and surface water as a single hydrologic resource, and (4) maintain environmental flows across political boundaries. The Corps must integrate environmental flows into your management protocol by holding Denver Water to these standards.</p> <p>Implement and enforce environmental flow standards. Expressly limit the depletion and alteration of natural water flows according to physical and legal availability, and accounting for environmental flow needs. Where flows are already highly altered, utilize management strategies, including water trading, conservation, floodplain restoration, and dam re-operation, to restore environmental flows to appropriate</p>	<p>Comment #1697-1 (ID 2445): <i>In 2007, the U. S. Army Corps of Engineers (Corps) participated in the 10th International River Symposium and International Environmental Flows Conference in Brisbane, Australia. That conference produced summary findings and a global action agenda to address the urgent need to protect rivers globally. The concept of "environmental flows" is key to that agenda. Environmental flows "describe the quantity, timing, and quality of water Bows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems." The Moffat Firing Project is a prime opportunity for the Corps needs to apply the principles of the Brisbane Action Agenda. For the sake of the Fraser River, please ACT on these principles! Estimate environmental flow needs immediately. Scientifically credible methodologies quantify the variable - not just minimum - flows needed for each water body by explicitly linking environmental flows to specific ecological functions and social values. Recent advances enable rapid, region-wide, scientifically credible environmental flow assessments. Denver Water should be required to address environmental flow needs. Integrate environmental flow management into every aspect of land and water management. Environmental flow assessment and management should be a basic requirement of Integrated Water Resource Management (IWRM); environmental impact assessment (EIA); strategic environmental assessment (SEA); infrastructure and industrial development and certification; and land-use, water-use, and energy-production strategies. Environmental flow management must be included in Denver Water's EIS. Establish institutional frameworks. Consistent integration of environmental flows into land and water management requires laws, regulations, policies and programs that: (1) recognize environmental flows as integral to sustainable water management, (2) establish precautionary limits on allowable depletions</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>levels. Flows on the Fraser and Colorado Rivers have been highly altered for 60 years and need the most stringent management standards.</p> <p>Your review of the Moffat Firming Project is critical to the future of the Fraser and Colorado Rivers, their tributaries and the residents of Grand County. Please require Denver Water to address environmental flows and adaptive management in their EIS.</p> <p>Sincerely,</p> 	<p><i>and alterations of natural flow, (3) treat ground water and surface water as a single hydrologic resource, and (4) maintain environmental flows across political boundaries. The Corps must integrate environmental flows into your management protocol by holding Denver Water to these standards. Implement and enforce environmental flow standards. Expressly limit the depletion and alteration of natural water flows according to physical and legal availability, and accounting for environmental flow needs. Where flows are already highly altered, utilize management strategies, including water trading, conservation, floodplain restoration, and dam re-operation, to restore environmental flows to appropriate levels. Flows on the Fraser and Colorado Rivers have been highly altered for 60 years and need the most stringent management standards. Your review of the Moffat Firming Project is critical to the future of the Fraser and Colorado Rivers, their tributaries and the residents of Grand County. Please require Denver Water to address environmental flows and adaptive management in their EIS.</i></p> <p>Response #1697-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA</p>




Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1698 Irene C. Cooke</p>	<div style="text-align: center;">    </div> <p>March 9, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>I am a resident of Grand County and am very concerned about the impact that the Moffat Firing Project will have on Grand Lake. For three generations (soon to be four!) my family has enjoyed the natural beauty of Grand Lake. Water in the lake is not as clear as it was when I was a child 50 years ago, mainly due to the years of pumping Colorado Big Thompson Project water through the lake. Studies show that clarity in the 1950s was 19 meters; today it is 3 meters or less.</p> <p>Denver Water now wants to decrease the amount of water that the Fraser River sends into the Colorado. The draft EIS does not acknowledge that the dewatered Fraser River will be pumped by the Northern Water Conservancy District through Grand Lake, carrying a significantly higher concentration of run-off nutrients, increasing algae counts, diminishing water clarity, and endangering the viability of this valuable eco-tourism hub.</p> <p>We have seen the increase in plant growth in Shadow Mt. Lake get to the point where the lake level had to be lowered to try to kill off the vegetation (Shadow Mt. "drawdown"). That's how bad it is already. How can you allow Denver Water to make matters even worse? Nothing in their EIS acknowledges the magnitude of existing impacts caused by previous years of diversions.</p> <p>The EIS does not address the impact the combination of the Moffat AND Windy Gap Projects will have on Grand Lake. Denver Water should be required to include this in the assessment and describe how they will mitigate the impact. It's time for the Corps to hold them accountable for their actions and prevent any further harm to our waters.</p> <p>Sincerely, </p>	<p>Comment #1698-1 (ID 2181): <i>I am a resident of Grand County and am very concerned about the impact that the Moffat Firing Project will have on Grand Lake. For three generations (soon to be four!) my family has enjoyed the natural beauty of Grand Lake. Water in the lake is not as clear as it was when I was a child 50 years ago, mainly due to the years of pumping Colorado Big Thompson Project water through the lake. Studies show that clarity in the 1950s was 19 meters; today it is 3 meters or less. Denver Water now wants to decrease the amount of water that the Fraser River sends into the Colorado. The draft EIS does not acknowledge that the dewatered Fraser River will be pumped by the Northern Water Conservancy District through Grand Lake, carrying a significantly higher concentration of run-off nutrients, increasing algae counts, diminishing water clarity, and endangering the viability of this valuable eco-tourism hub. We have seen the increase in plant growth in Shadow Mt. Lake get to the point where the lake level had to be lowered to try to kill off the vegetation (Shadow Mt. "drawdown"). That's how bad it is already. How can you allow Denver Water to make matters even worse? Nothing in their EIS acknowledges the magnitude of existing impacts caused by previous years of diversions. The EIS does not address the impact the combination of the Moffat AND Windy Gap Projects will have on Grand Lake. Denver Water should be required to include this in the assessment and describe how they will mitigate the impact. It's time for the Corps to hold them accountable for their actions and prevent any further harm to our waters.</i></p> <p>Response #1698-1: DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed,</p>

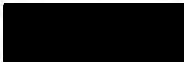

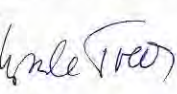
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>the C-BT Project, and the Windy Gap Project.”</p> <p>Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1700 Bruce R. Dickinson</p>	<p>March 9, 2010</p> <p>Mr. Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin,</p> <p>I am writing to you, because of my concern for the fishing in the Fraser River. I am a 53 year resident of Colorado and Denver, who has fly-fished the Fraser River annually for about 40 years. I am concerned that the fishing is slowly deteriorating due to water diversions from this river during this period.</p> <p>As you analyze the environmental impact of additional draws on this river, please use a baseline period that is at least 25 years long to properly average the stream flows available to this river drainage. Please also protect the seasonal water flows needed to protect this fishery (i.e. high spring flows to flush the sand and chemicals that flow into the river from the highway, the summer flows necessary to keep the water temperatures within acceptable ranges that doesn't stress the trout and the minimum flows in the fall and winter to provide for the brown trout spawning period and then winter survival rates).</p> <p>I know Denver Water needs to develop additional water supplies, but I believe that these supplies need to be from a variety of river drainages and not divert too much water from the Fraser River and its tributaries. Please protect this river's fishing for future generations of Coloradoans.</p> <p>Sincerely,  Bruce R. Dickinson </p> 	<p>Comment #1700-1 (ID 2070): <i>I am writing to you, because of my concern for the fishing in the Fraser River. I am a 53 year resident of Colorado and Denver, who has fly-fished the Fraser River annually for about 40 years. I am concerned that the fishing is slowly deteriorating due to water diversions from this river during this period. As you analyze the environmental impact of additional draws on this river, please use a baseline period that is at least 25 years long to properly average the stream flows available to this river drainage. Please also protect the seasonal water flows needed to protect this fishery (i.e. high spring flows to flush the sand and chemicals that flow into the river from the highway, the summer flows necessary to keep the water temperatures within acceptable ranges that doesn't stress the trout and the minimum flows in the fall and winter to provide for the brown trout spawning period and then winter survival rates). I know Denver Water needs to develop additional water supplies, but I believe that these supplies need to be from a variety of river drainages and not divert too much water from the Fraser River and its tributaries. Please protect this river's fishing for future generations of Coloradoans</i></p> <p>Response #1700-1: Both the DEIS (Section 3.9) and the FEIS (Section 3.11) discuss the status of fish in the Fraser River and present data from 1985 through 2007. The data do not indicate a decline in fish populations in the last 10-20 years. The limited data on macroinvertebrates (bugs) does not show a decline between 1985 and 2007. Also, the amount of water being diverted has not shown an increasing trend over the last 10-20 years. FEIS Sections 3.11, 4.6.11, and 5.11 have been updated to include revised discussions of these issues including low flows and water temperatures in summer. Furthermore, the Proposed Project would divert water from four river basins to meet the new demands of Denver Water (Fraser, Blue, South Platte rivers, and South Boulder Creek).</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1703 Jean Francois Treves and Ursula Treves</p>	<div style="text-align: center;"> <p>Jean Francois and Ursula Treves</p>  </div> <p>March 1st, 2010</p> <p>Scott Franklin, Moffat EIRS Project Mgr. U.S. Corps of Engineers 9307 South Wadsworth Blvd. Denver, CO 80128</p> <p>Re: Denver, Colorado - Gross Dam Expansion Project - TO WHOM IT MAY CONCERN</p> <p>Many good arguments have been made to substantiate why this project should not go forward. We would like to add our names to the list of Coal Creek Canyon residents who strongly object to this project.</p> <p>In the near future, water will become the most precious commodity for the world, and no less so for us. Therefore, the first step toward satisfying our water needs should come from CONSERVATION. Studies have shown that Denver's water needs can be met – as they have indeed been met during recent summer droughts – if Denver residents are requested to reduce the times they water their lawns and, in general, be watchful of their water consumption.</p> <p>Coal Creek Canyon residents, the same as residents in other mountainous areas, are well aware of water scarcity; up here it is a way of life to conserve water and live with certain water consumption restrictions. It can be done, and at no inconvenience to everyday life.</p> <p>We request that Denver residents, if they are not already aware, be sensitized to the dangers of coming water shortages in our area and around the world. They need to learn that water is a precious commodity and that we all will need to live with less of it. What better way to start them on that path now, and in doing so AVOID THAT GROSS DAM BE ENLARGED and avoid all the attendant disruption, danger and disturbance of the environment, not to speak of the money involved.</p> <p>We respectfully request that this letter be entered into the project file and that our protest be heard!</p> <div style="text-align: center;">   </div>	<p>Comment #1703-2 (ID 2088): <i>Many good arguments have been made to substantiate why this project should not go forward. We would like to add our names to the list of Coal Creek Canyon residents who strongly object to this project.</i></p> <p>Response #1703-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1703-1 (ID 2087): <i>In the near future, water will become the most precious commodity for the world, and no less so for us. Therefore, the first step toward satisfying our water needs should come from CONSERVATION. Studies have shown that Denver's water needs can be met - as they have indeed been met during recent summer droughts - if Denver residents are requested to reduce the times they water their lawns and, in general, be watchful of their water consumption. Coal Creek Canyon residents, the same as residents in other mountainous areas, are well aware of water scarcity; up here it is a way of life to conserve water and live with certain water consumption restrictions. It can be done, and at no inconvenience to everyday life. We request that Denver residents, if they are not already aware, be sensitized to the dangers of coming water shortages in our area and around the world. They need to learn that water is a precious commodity and that we all will need to live with less of it. What better way to start them on that path now, and in doing so AVOID THAT GROSS DAM BE ENLARGED and avoid all the attendant disruption, danger and disturbance of the environment, not to speak of the money involved. We respectfully request that this letter be entered into the project file and that our protest be heard!</i></p>

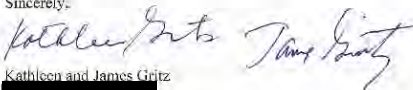
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1703-1:</p> <p>Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1706 Kathleen and James Gritz</p>	<p>March 6, 2010</p> <p>Scott Franklin, Moffat EIS Project Mgr. Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin,</p> <p>We are residents of the neighborhood called Lakeshore Park on the north side of Gross Dam. We are extremely concerned with the proposed project and request that the Denver Water reconsider its plan and NOT augment the size of Gross Dam as part of the Moffat Collection System Project for the following reasons:</p> <p>The surrounding neighborhoods, for which ours is one in addition to that of Coal Creek Canyon, expect to be severely impacted by the traffic congestion of haul trucks, lumber trucks and worker vehicles traveling up and down the canyon, over four years. This will create ambient pollution, not only from emission exhaust but also from fine, pulverized dirt since the road from Coal Creek Canyon to the dam is an unimproved, dirt road. Also we expect tremendous noise pollution from the sound of the trucks, diesel engines, rock crushing, and cement plant and earth-moving equipment, day and night for four years. We chose to live here to enjoy the sounds of nature and quiet. And visitors also come to enjoy that in the adjacent Boulder County Open Spaces and the National Forest areas.</p> <p>There will be major traffic safety issues and these along with the damage that will be caused to the roads used have not yet been addressed in the rough draft EIS, neither has there been a traffic study. The angle of switchback turns apparently do not allow for a safe turn of the large trucks without passing into the oncoming traffic lane in several locations. The roads include Hwy 72, Gross Dam Road and Flagstaff Rd. There is nothing that addresses either the road-safety issues or the damage that will happen to the roads as a result of the project. The mitigating costs should be added to the cost of the project should the project go forward.</p> <p>The loss of 20,000 to 30,000 trees is a major permanent impact. The carbon sink is gone.</p> <p>Although it is acknowledged that the Denver Water Board holds the water rights from the Fraser River system, this project will increase the Fraser River diversion to 80%. In 2005, the American Rivers Association already ranked the Fraser as the 3rd Most Endangered River in the U.S. The Moffat project will decrease flows in the Fraser, Colorado, Williams Fork and Blue Rivers. Healthy upslope rivers are essential to the well being of Boulder and Colorado (and beyond) residents whether it is for personal or recreational use.</p> <p>There is no doubt that the wildlife living here will be impacted by the project. I have personally seen these animals in the vicinity of Gross Dam: the annual elk herds, bear, puma, bobcat, lynx (radio-collared from releases in Colorado), osprey, turkey, eagle and</p> 	<p>Comment #1706-0 (ID 2198): <i>We are residents of the neighborhood called Lakeshore Park on the north side of Gross Dam. We are extremely concerned with the proposed project and request that the Denver Water reconsider its plan and NOT augment the size of Gross Dam as part of the Moffat Collection System Project for the following reasons: The surrounding neighborhoods, for which ours is one in addition to that of Coal Creek Canyon, expect to be severely impacted by the traffic congestion of haul trucks, lumber trucks and worker vehicles traveling up and down the canyon, over four years. This will create ambient pollution, not only from emission exhaust but also from fine, pulverized dirt since the road from Coal Creek Canyon to the dam is an unimproved, dirt road. Also we expect tremendous noise pollution from the sound of the trucks, diesel engines, rock crushing, and cement plant and earth-moving equipment, day and night for four years. We chose to live here to enjoy the sounds of nature and quiet. And visitors also come to enjoy that in the adjacent Boulder County Open Spaces and the National Forest areas. There will be major traffic safety issues and these along with the damage that will be caused to the roads used have not yet been addressed in the rough draft EIS, neither has there been a traffic study. The angle of switchback turns apparently do not allow for a safe turn of the large trucks without passing into the oncoming traffic lane in several locations. The roads include Hwy 72, Gross Dam Road and Flagstaff Rd. There is nothing that addresses either the road-safety issues or the damage that will happen to the roads as a result of the project. The mitigating costs should be added to the cost of the project should the project go forward.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>more. I believe there are more than one species of endangered plants on the north slope of the Dam including <i>Physaria</i> (Bell's twinpod).</p> <p>We believe that Denver Water's projected water needs are flawed. It based its projections on savings from conservation for the years 1980-1997 so that Denver customers could only conserve 16,000 AF/yr by 2030 (see DEIS, Ch. 1-10-12). They failed to base their projection of need on more recent conservation data:</p> <ol style="list-style-type: none"> 1. During the drought of 2002-2005, Denver Water maintained a surplus of over 30,000 AF. 2. In 2009, 9 billion gallons of water were "saved" due to cool, rainy weather and conservation measures. 9 billion gallons equals 27,000 AF. 3. Water for landscaping is 47% of total residential use in the Denver area. <p>FACT: Innovative conservation would cancel the projected shortfall, year after year. The Moffat Project is not needed.</p> <p>The cost of this project plus the added costs of mitigating problems, which haven't yet been included, are extremely high. Please stop this project and the mindset that leads to policies and planning that bank on ever-increasing supply rather than on lowering demand. Make Colorado a leader in water conservation and green energy. Colorado is still regarded as a place of natural beauty worth preserving.</p> <p>Sincerely,</p>  <p>Kathleen and James Gritz [Redacted Address]</p> <p>cc. Denver Water Attn: Brian Gogas Mail Code 415 1600 West 112th Ave Denver, CO 80204</p> <p>Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128 Moffat.cis@usace.army.mil</p> <p>FERC Attn: Sec. Kimberly Bose 888 First St. NE Washington, D.C. 20426</p> <p>Boulder County Commissioners Cindy Domenico, Ben Pearlman Will Toor PO Box 471 Boulder, CO 80306</p> <p>EPA Region 8 80 C-EISC 1595 Wynkoop St. Denver, CO 80202</p>	<p>Response #1706-0:</p> <p>The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces the NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare.</p> <p>For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with all applicable noise ordinances and work with Boulder County to identify reasonable and feasible noise abatement measures for the Project construction period.</p> <p>CDOT is responsible for maintenance of the State highways such as SH 72. Boulder County is responsible for maintenance of county roads, such as CR 77S, CR 132, etc. Boulder County maintains Gross Dam Road (CR 77S) from SH 73 to the railroad tracks. Denver Water currently maintains Gross Dam Road from the railroad track crossing to Flagstaff Road. During construction, Denver Water or its contractor would be responsible for maintaining all of Gross Dam Road. Denver Water would work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>Senator Mark Udall 999 18th St Ste.1525 North Tower Denver, CO 80202</p> <p>Senator Michael Bennet 2300 15th Ste 450 Denver, CO 80202</p> <p>Representative Jared Polis Washington DC Office 501 Cannon HOB Washington DC, 20515</p>	<p>Comment #1706-2 (ID 2197): <i>The loss of 20,000 to 30,000 trees is a major permanent impact. The carbon sink is gone.</i></p> <p>Response #1706-2: Impacts from tree removal were addressed in the DEIS for transportation, air quality, noise, and visual resources, as well as in soils and biological resources. The effects of tree removal on noise were analyzed in DEIS Section 4.12.1. Impacts were assessed as temporary and moderate, and would be similar to other construction noise. Denver Water would work closely with the Corps and USFS to ensure tree removal and restoration efforts are consistent with National Forest standards.</p> <p>Greenhouse gas (GHG) emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>Comment #1706-3 (ID 2196): <i>Although it is acknowledged that the Denver Water Board holds the water rights from the Fraser River system, this project will increase the Fraser River diversion to 80%. In 2005, the American Rivers Association already ranked the Fraser as the 3rd Most Endangered River in the US. The Moffat project will decrease flows in the Fraser, Colorado, Williams Fork and Blue Rivers. Healthy upslope rivers are essential to the well being of Boulder and Colorado (and beyond) residents whether it is for personal or recreational use.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1706-3: DEIS Section 3.1 presents information that demonstrates the hydrologic effects of upstream transbasin diversions and increased water use over time in the upper Fraser River Basin and along the Colorado River mainstem at Windy Gap. DEIS Table 3.1-10 summarizes the effects of historical Moffat Collection System diversions on native flow at the Fraser River at Winter Park gage. On average, Denver Water diverted approximately 50% of the average annual native flow at the Fraser River at Winter Park gage for the 30-year period from 1975 through 2004. The percentage of native flow diverted by Denver Water depends on the location in the basin. Denver Water would divert over 90% of the native flow with the Moffat Project on-line from some small tributaries that do not have bypass flow requirements. Denver Water would divert about 76% of the native flow at the Winter Park gage with the Moffat Project on-line. At the Granby gage located near the mouth of the Fraser River, Denver Water's average annual Moffat Collection System diversions represent approximately 41% of the native flow. Tables showing the percentage of native flow diverted by Denver Water under Current Conditions, Full Use of the Existing System and the proposed Moffat Project flow were added to FEIS Appendix H.</p> <p>The EIS considers the upper Colorado River and its tributaries as a system and evaluates hydrologic effects associated with additional diversions are they are translated downstream from the tributaries to the Colorado River mainstem. Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it is appears that</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>Comment #1706-4 (ID 2195): <i>There is no doubt that the wildlife living here will be impacted by the project. I have personally seen these animals in the vicinity of Gross Dam: the annual elk herds, bear, puma, bobcat, lynx (radio-collared from releases in Colorado), osprey, turkey, eagle and more. I believe there are more than one species of endangered plants on the north slope of the Dam including Physaria (Bell's twinpod).</i></p> <p>Response #1706-4: In addition to wildlife already discussed in the DEIS and FEIS, Osprey and bald eagle have been added to FEIS Table 3.9-1. Raptors Likely or Known to Occur in the Gross Reservoir Study Area.</p> <p>The Corps is not aware of any records of Bell's twinpod near the dam, and the habitat is not suitable. A related species, <i>Physaria vitulifera</i>, is likely to occur.</p> <p>Comment #1706-5 (ID 2194): <i>We believe that Denver Water's projected water needs are flawed. It based its projections on savings from conservation for the years 1980- 1997 so that Denver customers could only conserve 16,000 AF/yr by 2030 (see DEIS, Ch. 1-10-12). They failed to base their projection of need on more recent conservation data: 1. During the drought of 2002-2005, Denver Water maintained a surplus of over 30,000 AF. 2. In 2009, 9 billion gallons of water were "saved" due to cool, rainy weather and conservation measures. 9 billion gallons equals 27,000 AF. 3. Water for landscaping is 47% of total residential use in the Denver area. FACT: Innovative conservation would cancel the projected shortfall, year after year. The Moffat Project is not needed.</i></p>



Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1706-5: As shown in Table 1-1 in FEIS Section 1.4.1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A (Supplemental Evaluation of Denver Water Demand Projections) and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Comment #1706-6 (ID 2193): <i>The cost of this project plus the added costs of mitigating problems, which haven't yet been included, are extremely high. Please stop this project and the mindset that leads to policies and planning that bank on ever-increasing supply rather than on lowering demand. Make Colorado a leader in water conservation and green energy. Colorado is still regarded as a place of natural beauty worth preserving.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1706-6:</p> <p>The socioeconomic impact analysis provides information on how the Project would be paid for, including the projected increases in both water rates and new connection charges for each alternative. Under the No Action Alternative, water rates would increase by between 3 and 7% annually through the year 2017, for a total of 52% over that period; new connection charges would remain at 2008 levels. In comparison, under the Proposed Action water rates would increase by a total of 55% by 2017 and new connection fees would increase by 4%. Increases under other alternatives would be similar. The projected 34,000 AF/yr shortfall anticipated for Denver Water by 2032 would be made up through a combination of increasing supply and lowering demand (conservation measures). Almost half of the projected shortfall (16,000 AF/yr) is anticipated to be met through new conservation measures, on top of conservation already achieved. Lastly, the water released from Gross Reservoir is used to produce hydropower (green energy).</p>

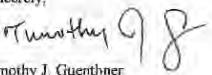
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1707 Timothy J. Guenthner</p>	<div style="text-align: center;"> <p>Timothy J Guenthner</p>  <p>March 06, 2010</p>  </div> <p>US Army Corps of Engineers ATTN Scott Franklin 9307 S Wadsworth Blvd Littleton, CO 80128</p> <p>To Whom It May Concern:</p> <p>I am submitting these comments about the Moffat System Expansion project (FERC project #2035) which proposes to expand Gross Reservoir in order to store more water for the Northern System of Denver Water's service area. I live in the Lakeshore Park subdivision on the north shore of Gross Reservoir. As a resident, I am very familiar with the environment that will be affected. As a concerned citizen and major stakeholder due to my location, I am writing to express my opposition to this proposal. Please consider the following comments in explaining my opposition.</p> <ol style="list-style-type: none"> 1. The traffic that will be generated by this project will have significant impacts on the Coal Creek and Flagstaff neighborhoods. Both Hwy 72 through Coal Creek Canyon and Flagstaff Road are narrow and winding roads with heavy bicycle traffic. The huge influx of haul trucks, lumber trucks and worker vehicles will cause serious traffic safety issues on both roads. Although large trucks will have to use Coal Creek Canyon, there will definitely be increased traffic on Flagstaff as well. Neither road is in good enough shape to support such traffic. There are few pull offs and none that accommodate large trucks. The switchbacks and tight curves are dangerous and cannot be negotiated by large trucks without their trailers crossing the center line and into oncoming traffic. The roads will not accommodate the traffic anticipated without significant impacts to the roads themselves and to the existing neighborhood traffic. The turnoff from Hwy 72 to the Dam (at the United Power office) is a very sharp turn with limited visibility. These large trucks will have major impact on other users' ability to safely use these roads. 2. The noise generated by this project will severely impact the neighborhoods as well. Although the proposal states that "At a distance greater than 50 ft noise levels diminish rapidly", those of us who live here in the mountains at altitude know that that is completely untrue. We can today clearly hear the train that is miles away across the reservoir. The noise (some equipment is planned to operate continuously around the clock) of the proposed cement plant, tree cutting, construction activities, helicopters, "Air Curtain Destructors", etc will definitely impact our quality of life, displace wildlife and will very likely decrease our property values. If this project goes forward, Denver Water needs to address 	<p>Comment #1707-2 (ID 2372): <i>I am submitting these comments about the Moffat System Expansion project (FERC project #2035) which proposes to expand Gross Reservoir in order to store more water for the Northern System of Denver Water's service area. I live in the Lakeshore Park subdivision on the north shore of Gross Reservoir. As a resident, I am very familiar with the environment that will be affected. As a concerned citizen and major stakeholder due to my location, I am writing to express my opposition to this proposal. Please consider the following comments in explaining my opposition.</i></p> <p>Response #1707-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA. The Corps notes the opposition to the Project.</p> <p>Comment #1707-4 (ID 2381): <i>The traffic that will be generated by this project will have significant impacts on the Coal Creek and Flagstaff neighborhoods. Both Hwy 72 through Coal Creek Canyon and Flagstaff Road are narrow and winding roads with heavy bicycle traffic. The huge influx of haul trucks, lumber trucks, and worker vehicles will cause serious traffic safety issues on both roads. Although large trucks will have to use Coal Creek Canyon, there will definitely be increased traffic on Flagstaff as well. Neither road is in good enough shape to support such traffic. There are few pull offs and none that accommodate large trucks. The switchbacks and tight curves are dangerous and cannot be negotiated by large trucks without their trailers crossing the center line and into oncoming traffic. The roads will not accommodate the traffic anticipated without significant impacts to the roads themselves and to the existing neighborhood traffic. The turnoff from Hwy 72 to the Dam (at the United Power office) is a very sharp turn with limited visibility.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>realistic plans to protect the natural quiet we experience now</p> <p>3. The current plan calls for a quarry excavation on the edge of the reservoir that is not to be reclaimed. It proposes to leave an exposed 30 acre area above water not reclaimed. Although the project proposal notes that "visitors will become used to it" when talking about un-reclaimed destruction of land, that is a subjective statement. The goals of FERC, Boulder County and the National Forest Service are stated to maintain land as "forested" and natural. This must be addressed if this project is to go forward. If the quarry is built, reclamation of the area once the dam expansion is complete must be included in the plans and costs associated with the project.</p> <p>4. The loss of 20,000+ trees is a major, permanent impact. The proposed drowning of acres of forested land, which is full of wildlife, needs to be carefully considered. As a resident of the area affected, I have personally encountered wild turkey, deer, elk, mountain lion, bear, bobcat, coyote, eagle, osprey, numerous species of hawks, owls, etc. This wildlife, already sensitive to encroachment into their habitat, will be displaced by the expansion of the dam. How has impact to this rich abundance of wildlife been measured and considered in the alternatives provided? There needs to be an ongoing adaptive management plan in place to address how the area will be managed if the dam is expanded. Until that is developed, the true costs of this project are unknown.</p> <p>5. I am a river rafter and spend significant time enjoying the rivers of the Colorado basin. I am well aware of the issues of water shortages and water rights management faced by member states of the Colorado River Compact. There is simply not enough water on the Western Slopes. The river basins on the western slope that feed Gross Reservoir are already being depleted. Diverting additional water to enable growth on the Eastern plains is a short sighted and unsustainable solution to a larger problem. There is a potential to completely devastate the Fraser River and its current recreational and commercial value to its nearby residents. As the long-term drought conditions persist, there is no guarantee that the water planned to be extracted from the Fraser and pumped through the Moffat Tunnel will be available. There is a distinct possibility that there will never be enough water available to fill an expanded Gross Reservoir or maintain its expanded capacity. A lower river basin compact call could very well eliminate the possibility of moving any Western Slope water for this project. If this project moves forward, there must be adequate mitigation requirements as a condition of any approved permit to pull more water from the Colorado and Fraser Rivers.</p> <p>6. Adequate consideration of should be given to elimination of the projected water shortage through conservation. All 5 alternatives include expansion of the dam. There needs to be serious thought given to a 6th alternative of "No Action" in terms of the dam with a focus on addressing the potential water shortfall through conservation. During the recent drought years of 2003 and 2004, residents of the Front Range demonstrated a remarkable capacity for reducing water consumption</p>	<p><i>These large trucks will have major impact on other users' ability to safely use these roads.</i></p> <p>Response #1707-4: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Comment #1707-5 (ID 2380): <i>The noise generated by this project will severely impact the neighborhoods as well. Although the proposal states that "At a distance greater than 50 ft noise levels diminish rapidly", those of us who live here in the mountains at altitude know that that is completely untrue. We can today clearly hear the train that is miles away across the reservoir. The noise (some equipment is planned to operate continuously around the clock) of the proposed cement plant, tree cutting, construction activities, helicopters, "Air Curtain Destructors", etc. will definitely impact our quality of life, displace wildlife and will very likely decrease our property values. If this project goes forward, Denver Water needs to address realistic plans to protect the natural quiet we experience now.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>and effective conservation. There is no valid reason to assume that this conservation practice cannot be continued and improved upon. For example, incentives could be provided to households using less water, higher rates could be imposed for those using more water, tax incentives could be provided to encourage installation of gray water systems. Weekly watering rotations and restrictions were very effective in encouraging conservation during the dry summer a few years ago. If people were had the knowledge and incentive to conserve, the need for this expansion might be eliminated.</p> <p>7. It is not clear that a realistic cost/benefit analysis has been done to weigh the costs of this dam. The cost of conservation is significantly less than the cost of dam expansion. An innovative conservation plan needs to be seriously considered as a reasonable alternative. The cost of the construction of this dam, along with the continued high cost of pumping water from the Western Slopes is to be recovered by usage rates levied on Denver Water Board water consumers. These costs are orders of magnitude higher than alternative costs such as maintaining effective water conservation programs.</p> <p>8. It is incumbent upon Denver Water and FERC to have an extended public hearing process with more notification to stakeholders of this proposed expansion. Most of the people I have spoken to who could be directly affected by this (i.e. neighbors, bicyclists in Coal Creek / Flagstaff, hikers/birdwatchers on surrounding Forest Service and Open Space land, boaters on the reservoir, etc) have no idea this is being proposed. Hearings have been held in out-of-the-way places, at inconvenient times and with little advanced notification. This results in little or no visibility of this proposed project in the greater Boulder area. In the February 16th Boulder City Council meeting, a review of the Denver Water Board set aside of 5000 acre feet of water for Boulder Creek was reviewed. One city council member, surprised to hear that the source of the water was to be from the proposed Gross Dam expansion, questioned how the Council can spend three months debating the size of housing remodels in the city and yet this was the first time this proposed expansion has been mentioned in a Council meeting.</p> <p>I appreciate you taking the time to consider my viewpoint. Please stop this project and the mindset that leads to policies and planning that bank on ever increasing water supply rather than on lowering demand. I request that the Denver Board of Water Commissioners stop the Gross dam project, go back to the drawing board, and make water conservation the centerpiece of Denver Water's long-term management plans.</p> <p>Sincerely,  Timothy J. Guenther</p>	<p>Response #1707-5: All Gross Reservoir construction and operation activity would be conducted within the applicable noise standards and guidelines as administered by Boulder County and EPA, as summarized in FEIS Table 5.14-1.</p> <p>As described in FEIS Section 5.9, wildlife may be temporarily and indirectly impacted by construction noise. Wildlife responses to noise would depend on several factors such as species, the type of activity, topography, and individual sensitivity. The noise levels described in the EIS are predicted at distances of less than 50 feet from the source and would be temporary and remote. It is true that noise would travel greater distances from a source of sound at higher elevations due to lack of ground absorption. Sound travels omnidirectionally (i.e., does not travel upward or downward), which means that it dissipates outward in all directions the further away from its source it travels. As a general rule, when the radius or distance that a sound wave travels has doubled, the sound level is reduced by 6 dB.</p> <p>An expanded analysis of impacts to communities surrounding Gross Reservoir is included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Comment #1707-6 (ID 2379): <i>The current plan calls for a quarry excavation on the edge of the reservoir that is not to be reclaimed. It proposes to leave an exposed 30 acre area above water not reclaimed. Although the project proposal notes that "visitors will become used to it" when talking about un-reclaimed destruction of land, that is a subjective statement. The goals of FERC, Boulder County and the National Forest Service are stated to maintain land as "forested" and natural. This must be addressed if this project is to go forward. If the quarry</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>is built, reclamation of the area once the dam expansion is complete must be included in the plans and costs associated with the project.</i></p> <p>Response #1707-6: An additional mitigation measure has been added to FEIS Section 5.17.7 to address reclamation of the quarry site. The proposed quarry site would be primarily located on USFS land and therefore Denver Water would work closely with the USFS to ensure appropriate reclamation of this site and any alternative quarry sites.</p> <p>Comment #1707-3 (ID 2378): <i>The loss of 20,000+ trees is a major, permanent impact. The proposed drowning of acres of forested land, which is full of wildlife, needs to be carefully considered. As a resident of the area affected, I have personally encountered wild turkey, deer, elk, mountain lion, bear, bobcat, coyote, eagle, osprey, numerous species of hawks, owls, etc. This wildlife, already sensitive to encroachment into their habitat, will be displaced by the expansion of the dam. How has impact to this rich abundance of wildlife been measured and considered in the alternatives provided? There needs to be an ongoing adaptive management plan in place to address how the area will be managed if the dam is expanded. Until that is developed, the true costs of this project are unknown.</i></p> <p>Response #1707-3: Impacts to wildlife and wildlife habitat were assessed for each of the alternatives in DEIS Section 3.7 and are presented in FEIS Section 5.9. As described in DEIS Appendix M, Denver Water would submit a final Mitigation Plan before the Corps would issue a Section 404 Permit.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Comment #1707-10 (ID 2377): <i>I am a river rafter and spend significant time enjoying the rivers of the Colorado basin. I am well aware of the issues of water shortages and water rights management faced by member states of the Colorado River Compact. There is simply not enough water on the Western Slopes. The river basins on the western slope that feed Gross Reservoir are already being depleted. Diverting additional water to enable growth on the Eastern plains is a short sighted and unsustainable solution to a larger problem. There is a potential to completely devastate the Fraser River and its current recreational and commercial value to its nearby residents. As the long-term drought conditions persist, there is no guarantee that the water planned to be extracted from the Fraser and pumped through the Moffat Tunnel will be available. There is a distinct possibility that there will never be enough water available to fill an expanded Gross Reservoir or maintain its expanded capacity. A lower river basin compact call could very well eliminate the possibility of moving any Western Slope water for this project. If this project moves forward, there must be adequate mitigation requirements as a condition of any approved permit to pull more water from the Colorado and Fraser Rivers.</i></p> <p>Response #1707-10: Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p> <p>Comment #1707-9 (ID 2376): <i>Adequate consideration of should be given to elimination of the projected water shortage through conservation. All 5 alternatives include expansion of the dam. There needs to be serious thought given to a 6th alternative of "No Action" in terms of the dam with a focus on addressing the potential water shortfall</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>through conservation. During the recent drought years of 2003 and 2004, residents of the Front Range demonstrated a remarkable capacity for reducing water consumption and effective conservation. There is no valid reason to assume that this conservation practice cannot be continued and improved upon. For example, incentives could be provided to households using less water, higher rates could be imposed for those using more water, tax incentives could be provided to encourage installation of gray water systems. Weekly watering rotations and restrictions were very effective in encouraging conservation during the dry summer a few years ago. If people were had the knowledge and incentive to conserve, the need for this expansion might be eliminated.</i></p> <p>Response #1707-9: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Conservation Incentives Denver Water implements an aggressive rebate program and rewards customers for installing low-flow fixtures and rain gages. In the last three years 38,627 residential rebates have been processed by Denver Water, which amounts to 15 % of Denver Water's residential customers participating in rebate programs since 2007. Through these rebates, the new high-efficiency products help save about 960 AF of water, roughly the amount used by 2,400 homes in a year. Additionally, Denver Water has launched a pilot program with Habitat for Humanity by buying inefficient toilets (more than 1.6 gallons per flush) from their Home Improvement Outlet stores as an attempt to save over 40 AF/yr. Denver Water also offers free water-use audits and incentive contracts to commercial, industrial, and institutional customers.</p> <p>Comment #1707-7 (ID 2375): <i>It is not clear that a realistic cost/benefit analysis has been done to weigh the costs of this dam. The cost of conservation is significantly less than the cost of dam expansion. An innovative conservation plan needs to be seriously considered as a reasonable alternative. The cost of the construction of this dam, along with the continued high cost of pumping water from the Western Slopes is to be recovered by usage rates levied on Denver Water Board water consumers. These costs are orders of magnitude higher than alternative costs such as maintaining effective water conservation programs.</i></p> <p>Response #1707-7: Rigorous conservation measures and savings have been incorporated into the EIS analysis. Chapter 1 (Purpose and Need) describes the total water shortfall expected in the future and explains how conservation would meet almost half of that future demand. The projected 34,000 AF/yr shortfall anticipated for Denver Water by 2032 would be made up through a</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>combination of increasing supply and lowering demand (conservation measures). Almost half of the projected shortfall (16,000 AF/yr) is anticipated to be met through new conservation measures, on top of conservation already achieved. As described in Section 4.17 of the DEIS the No Action Alternative, which would include a combination of depletion of the Strategic Water Reserve and expanded conservation measures, would result in a 52% increase in water rates by 2017; in comparison, the Proposed Action would result in a 55% increase in water rates during that same period.</p> <p>A benefit-cost analysis of the alternatives is not required nor is it needed. The monetary costs of each alternative are discussed and summarized in Chapter 2 (Section 2.9) and also described as part of the socioeconomics impact analysis included in the DEIS Section 4.17). Estimated costs for each alternative include both the capital costs of construction as well as annual operations and maintenance costs. Impacts, which can be positive or negative, are specific to each resource and are discussed throughout the various impact analyses included in Chapter 4 of the DEIS. A summary of the impacts to each resource for each alternative is provided in the DEIS. This would provide the information necessary for the Corps to make an informed decision on the permit application. As a point of clarification, Denver Water does not “pump” water from the West Slope. The Moffat Collection System is a gravity system that does not require pumping. As shown in Table 1.1 of the Final EIS, Denver Water is planning to meet 68,000 AF/yr of water demand through conservation.</p> <p>Comment #1707-1 (ID 2374): <i>It is incumbent upon Denver Water and FERC to have an extended public hearing process with more notification to stakeholders of this proposed expansion. Most of the people I have spoken to who could be</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>directly affected by this (i.e. neighbors, bicyclists in Coal Creek / Flagstaff, hikers/birdwatchers on surrounding Forest Service and Open Space land, boaters on the reservoir, etc.) have no idea this is being proposed. Hearings have been held in out-of-the-way places, at inconvenient times and with little advanced notification. This results in little or no visibility of this proposed project in the greater Boulder area.</i></p> <p><i>In the February 16th Boulder City Council meeting, a review of the Denver Water Board set aside of 5000 acre feet of water for Boulder Creek was reviewed. One city council member, surprised to hear that the source of the water was to be from the proposed Gross Dam expansion, questioned how the Council can spend three months debating the size of housing remodels in the city and yet this was the first time this proposed expansion has been mentioned in a Council meeting.</i></p> <p>Response #1707-1: The Corps maintains a Project mailing list comprised of the general public (i.e., citizens, private companies, non-governmental organizations, etc.) that attended the scoping meetings as well as current contacts at the appropriate local, State, and Federal agencies. Informational postcards describing the public hearings, including the meeting in Boulder, were distributed to members of the Project mailing list on October 28, 2009.</p> <p>Information on the public hearings was also distributed as display ads in the following local newspapers:</p> <ul style="list-style-type: none"> • Denver Post, 10/30/09 and 11/30/09 • Sky-Hi Daily News, 10/30/09 and 11/30/09 • Mountain Messenger (Coal Creek Canyon), November Issue


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<ul style="list-style-type: none"> • Highlander Monthly, November Issue • Boulder Daily Camera, 10/30/09 and 11/30/09 <p>Public hearing information was also displayed on the Corps' Project website at https://www.nwo.usace.army.mil/html/od-tl/eis/moffat-eis.html and Denver Water's website at http://www.denverwater.org/SupplyPlanning/Planning/FutureWaterSupply/WaterSupplyProjects/Moffat/.</p> <p>Denver Water maintains a Project mailing list comprised of the general public, groups, and governmental entities who request to join. Sign-up sheets are present at all public meetings as well as on Denver Water's web page. Information on the public hearings for the Federal Energy Regulatory Commission process was also distributed as display ads in the following newspapers (July 2008): Sky-High News, Highlander, and Daily Camera.</p> <p>Meetings were held on the following dates at the locations listed (July 2008): Gross Reservoir, Coal Creek Canyon Community Center (Cresant Village), Spice of Life Event Center (Boulder), and Trinity United Methodist Church (Denver).</p> <p>Public hearing information was also displayed on Denver Water's website at: http://www.denverwater.org/SupplyPlanning/Planning/FutureWaterSupply/WaterSupplyProjects/Moffat/. Since the release of the DEIS, Denver Water and other groups have held additional public meetings in the Coal Creek Canyon and Boulder areas in order to develop a mitigation plan and answer questions from participants.</p> <p>Comment #1707-8 (ID 2373): <i>I appreciate you taking the time to consider my viewpoint. Please stop this project and the mindset that leads to policies and planning that bank on ever</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>increasing water supply rather than on lowering demand. I request that the Denver Board of Water Commissioners stop the Gross dam project, go back to the drawing board, and make water conservation the centerpiece of Denver Water's long-term management plans.</i></p> <p>Response #1707-8: The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation and water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1711 Jim A. Ives, C.E.P.</p>	<div style="text-align: center;">  <p>March 8, 2010</p> </div> <p>Scott Franklin, Moffat EIS Project Mgr. US Army Corps of Engineers 9307 South Wadsworth Blvd, Littleton, CO 80128</p> <p>RE: Moffat Collection System Project (Permit Application NOW 2002080762 DEN) DEIS and Section 404 Permit Comments.</p> <p>Dear Mr. Franklin,</p> <p>As an individual with more than 37 years as an environmental professional and as a member of the angling community, I have serious concerns about the potential impacts of the proposed Moffat Collection System Project on the health and sustainability of the Upper Colorado River Basin. I respectfully submit the following comments on the Moffat Collection System Project Draft Environmental Impact Statement (DEIS) and Section 404 Permit.</p> <p><u>Purpose and Need</u> The purpose and need statement in the DEIS was very narrowly written and restricted such that only a few options were left that could realistically meet the needs as outlined in the DEIS. In particular, the four listed key needs were treated as equal. My review, however, indicated that the vulnerability and reliability needs were the stronger arguments, while flexibility and firm yield needs could be met through a myriad of alternatives not included in the DEIS.</p> <p>Additionally the purpose and need statement does not appear to reflect the present needs of Denver Water. Following the 2002 drought, customer demand has been reduced by approximately 19%. As a result, Denver Water has accelerated its conservation goals such that it intends to conserve 29,000 AF by 2016. These increased conservation savings exceed by 13,000 AF the conservation savings assumed within the DEIS. These savings alone could meet the majority of the needs identified in the DEIS.</p> <p><u>Conservation</u> The DEIS lacked adequate information regarding the role of conservation in meeting the future water needs. Denver Water is to be commended for the leadership it has shown on conservation. They have implemented several meaningful and cost effective water conservation measures; however, developing water through additional conservation first before attempting to divert more West Slope water resources will enable determination of the extent that water can be developed through conservation while helping to ensure the health and environment of the Fraser River.</p> <p>In the DEIS, unrestricted demands are used as a basis for establishing the need for the project. This is inconsistent with the present operations of Denver Water. Denver Water and its customers have demonstrated that they can curb significant water usage in</p> <p style="text-align: center;">1</p>	<p>Comment #1711-11 (ID 2352): <i>As an individual with more than 37 years as an environmental professional and as a member of the angling community, I have serious concerns about the potential impacts of the proposed Moffat Collection System Project on the health and sustainability of the Upper Colorado River Basin. I respectfully submit the following comments on the Moffat Collection System Project Draft Environmental Impact Statement (DEIS) and Section 404 Permit.</i></p> <p>Response #1711-11: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1711-10 (ID 2351): <i>Purpose and Need The purpose and need statement in the DEIS was very narrowly written and restricted such that only a few options were left that could realistically meet the needs as outlined in, the DEIS. In particular, the four listed key needs were treated as equal. My review, however, indicated that the vulnerability and reliability needs were the stronger arguments, while flexibility and firm yield needs could be met through a myriad of alternatives not included in the DEIS.</i></p> <p>Response #1711-10: The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>response to drought conditions and maintain moderate water conservation measures. Denver Water has established a goal of achieving a 22% reduction in system-wide water use in the next decade. The DEIS fails to acknowledge the pivotal role the accelerated conservation savings and drought response measures play in meeting future needs.</p> <p>Because over half of the water currently being utilized is for outdoor landscaping and lawn watering, efforts should be devoted to exploring and implementing measures to reduce and conserve that usage. This should be considered before taking additional trans-mountain diversions.</p> <p>Cumulative Impacts The statutory requirements of the National Environmental Policy Act (NEPA), Clean Water Act (CWA), and the Council of Environmental Quality (CEQ) regulations require that the DEIS include a full analysis of connected, cumulative and similar actions as well as direct, indirect, and cumulative impacts. However, as written the DEIS uses current conditions as baseline flow. Significant diversions of the upper Colorado River headwater's including the Fraser River began in the late 1930's with the construction of the Moffat Tunnel and the Big-Thompson project. The cumulative effects of these early diversions up to the present day, proposed additional diversions must be assessed. The DEIS ignores the foreseeable likelihood that additional operations such as the Windy Gap Firming Project (WGFP) may come online before the Moffat Project. Denver Water already takes almost 65% of the natural flow of the Fraser River. The proposed Moffat Project would take another 20% of the Fraser's water flow. A diversion of 20% might not represent a significant impact, if it wasn't stacked on top of the current Fraser River diversions. The DEIS does not consider the impacts of existing projects are having on the streams and their resources. Some of the streams affected including the Fraser River are already showing signs of deterioration. Will the additional diversions push the streams to a point where they can no longer sustain their ecosystems and fisheries?</p> <p>In addition, the DEIS also fails to include existing assessments of the cumulative impacts of the Moffat Project and WGFP. The Grand County Stream Management Plan works to assess the cumulative impacts of current as well as proposed operations on the Upper Colorado River. This document identifies mechanisms to avoid and mitigate those cumulative impacts.</p> <p>Many of the areas of concern around the cumulative impacts deal directly with stream flows. The DEIS does address both baseline flows and low flows (albeit insufficiently), however, there is little analysis of the impact to peak flows. Sustained peak flows at key times of the year are required to mimic the natural flow regime and ensure the health and resilience of the rivers. Periodic spring high flows (flushing flows) are extremely important to the configuration of a streambed and the removal of sediment.</p> <p>In 2005, the Fraser River was listed as the third most endangered river in North America. Showing signs of deterioration, it was rapidly approaching the point where it could no longer sustain a healthy trout fishery and ecosystem. Continued additional diversions will further degrade West Slope ecosystems and threaten miles of prized trout and wildlife habitat.</p> <p>The DEIS contains little analysis of the impacts to water quality and fails to adequately assess the impacts of increased water temperatures, sedimentation, and increased concentrations of nutrients. Reductions in stream flow during the summer months can</p>	<p>present-day water needs. Many underlying, interrelated needs can contribute to the discrete purpose of the Project. The Corps disagrees that the Purpose and Need statement is too narrow. Rather the Corps believes it is appropriate to integrate several underlying needs into one defined purpose, since the multiple needs of the applicant are not "independent" but rather are interconnected in the water supply issues that Denver Water is facing. Failing to address any one of the issues would jeopardize Denver Water's ability to meet projected demand needs.</p> <p>The Corps conducted a detailed alternative screening process for the Moffat Project that considered over 300 water sources and infrastructure structural components (Alternatives Screening Report, Corps 2007) including agricultural water transfer, municipal reuse, and various storage locations.</p> <p>Comment #1711-9 (ID 2350): <i>Additionally the purpose and need statement does not appear to reflect the present needs of Denver Water. Following the 2002 drought, customer demand has been reduced by approximately 19%. As a result, Denver Water has accelerated its conservation goals such that it intends to conserve 29,000 AF by 2016. These increased conservation savings exceed by 13,000 AF the conservation savings assumed within the DEIS. These savings alone could meet the majority of the needs identified in the DEIS.</i></p> <p>Response #1711-9: Denver Water does consider past and future conservation efforts when calculating future demand as shown in Table 1-1.</p> <p>Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of 18,000 AF. Denver Water is implementing an</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>contribute to higher water temperatures on hot summer days. Temperatures exceeding regulatory limits have already occurred in the Fraser River and Ranch Creek in July and August. Water temperatures exceeding 70 degrees Fahrenheit can severely impact trout.</p> <p>Without periodic flushing flows, sediment from soil erosion and from traction sand utilized on US Highway 40 along the Fraser River can destroy the trout redds key to their reproduction and can smother the macroinvertebrates which serve as trout food. This sedimentation can ultimately destroy the trout habitat and ecosystem.</p> <p>The DEIS fails to discuss the exacerbation of the diminishing clarity and increasing algae counts in Grand Lake as a result of the cumulative depletions from the Moffat Project and WGFP. The nutrients from effluent discharges along the Fraser River during periods of depleted stream flow will result in increased nutrient concentrations being carried into Grand Lake. The effluent flows tend to be higher due to infiltration at the time of the added stream depletions. The depletions will also occur during a period of a high influx of sediment borne phosphorous and when runoff from agricultural lands carry additional nutrients into the stream, adding to the problem in Grand Lake.</p> <p><u>Mitigation Measures</u> It is imperative that effective mitigation measures are put in place to protect the habitat, wildlife, and local communities that rely on the Upper Colorado River Basin streams for survival. The proposed mitigation measures proposed in the DEIS appear to be somewhat minimal. At a minimum, sustained, healthy, year-round stream flows in the Fraser, Williams Fork, and Upper Colorado Rivers should be ensured in order to support fish, wildlife, and rural communities that depend upon these rivers. The mitigation requirements should be incorporated as conditions of any approved permit for the project. The DEIS also does mention the collaborative negotiations between Denver Water and other entities pursuing additional environmental enhancement opportunities separate from the EIS process. These conversations and opportunities should be included in the DEIS and be subject to public review and comment.</p> <p>One has to remember that water is a finite resource. Denver Water in partnership with its customers and community stakeholders must develop a long-term, sustainable solution to meeting Front Range municipal water demands that minimize the harmful impacts on our rivers and streams.</p> <p>Sincerely,  Jim A. Ives, C.E.P.</p>	<p>aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.</p> <p>Comment #1711-8 (ID 2349): <i>Conservation The DEIS lacked adequate information regarding the role of conservation in meeting the future water needs. Denver Water is to be commended for the leadership it has shown on conservation. They have implemented several meaningful and cost effective water conservation measures; however, developing water through additional conservation first before attempting to divert more West Slope water resources will enable determination of the extent that water can be developed through conservation while helping to ensure the, health and environment of the Fraser River. In the DEIS; unrestricted demands are used as a basis for establishing the need for the project. This is inconsistent with the present operations of Denver Water. Denver Water and its customers have demonstrated that they can curb significant water usage in response to drought conditions and maintain moderate water conservation measures. Denver Water has established a goal of achieving a 22% reduction in system-wide water use in the next decade. The DEIS fails to acknowledge the pivotal role the accelerated conservation savings and drought response measures play in meeting future needs. Because over half of the water currently being utilized is for outdoor landscaping and lawn watering, efforts should be devoted to exploring and implementing measures to reduce and conserve that usage. This should be considered before taking additional trans-mountain</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>diversions.</i></p> <p>Response #1711-8: As shown in FEIS Table 1-1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A and research from the American Water Works Association was incorporated into the calculations of natural replacement savings. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1711-7 (ID 2348): <i>Cumulative Impacts The statutory requirements of the National Environmental Policy Act (NEPA), Clean Water Act (CWA), and the Council of Environmental Quality (CEQ) regulations require that the DEIS include a full analysis of connected, cumulative and similar actions as well as direct, indirect, and cumulative impacts. However, as written the DEIS uses current conditions as baseline flow. Significant diversions of the upper Colorado River headwater's including the Fraser River began in the late 1930's with the construction of the Moffat Tunnel and the Big-Thompson project. The cumulative effects of these early diversions up to the present day, proposed additional diversions must be assessed. The DEIS ignores the foreseeable likelihood that additional operations such as the Windy Gap Firming Project (WGFP) may come online before the Moffat Project. Denver Water already takes almost 65% of the natural flow of the Fraser River. The proposed Moffat Project would take another 20% of the Fraser's water flow. A diversion of 20% might not represent a significant impact, if it wasn't stacked on top of the current Fraser River diversions. The DEIS does not consider the impacts of existing projects are having on the streams and their resources. Some of the streams affected including the Fraser River are already showing signs of</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>deterioration. Will the additional diversions push the streams to a point where they can no longer sustain their ecosystems and fisheries?</i></p> <p>Response #1711-7: Past Actions CEQ interprets NEPA regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the action and its alternatives may have a continuing, additive and significant relationship to those effects. The environmental analysis required under NEPA is forward-looking, in that it focuses on the potential impacts of the proposed action that an agency is considering. Thus, review of past actions is required to the extent that this review informs agency decision-making regarding the proposed action.</p> <p>The Corps has considered that past water-related actions, such as impoundments and diversions, have affected the Colorado River and are accounted for in the analysis of Current Conditions. The DEIS catalogues a list of past projects in Section 5.2. These projects were included in PACSM to sufficiently account for and represent past actions. In addition, effects of past actions on existing flows are accounted for and disclosed in the DEIS Chapter 3 Affected Environment, specifically Section 3.1 Hydrology.</p> <p>The Corps provided additional information on past actions in FEIS Section 4.2. This was accomplished by qualitatively assessing the environment approximately 200 feet upstream and downstream of representative Denver Water diversions. The upstream conditions were meant to coincide with pre-diversion conditions. A combination of streams with and without bypass flows were evaluated (e.g., St. Louis Creek, Jim Creek, etc.) using historic photo documentation and aerial</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>photography. Additionally, FEIS Section 3.1.5 was expanded to include a discussion of virgin flows and the percentage of monthly virgin flows diverted by Denver Water. This allows the reader to compare natural flows with past diversions at each of Denver Water's diversions locations modeled in PACSM.</p> <p>Tipping Point The Corps is not aware of a scientific threshold or "tipping point" at which negative impacts occur to resources like water quality or aquatic species nor is the Corps aware of any model or technique available that conducts "threshold" analysis. The magnitude of impact depends on the current state of that resource and factors that influence that resource. For example, aquatic resources respond to minimum flows and other conditions that sustain their habitat and are incrementally affected by temperature and water quality changes. The evaluation of effects on aquatic resources considered the current state of that resource including species composition, relative abundance, benthic macroinvertebrates, and habitat availability and factors that affect that resource such as minimum flows, temperature, and water quality to assess the magnitude of impact.</p> <p>The direct impact discussion for aquatic resources (DEIS Section 4.9) identifies minor impacts are anticipated to occur as a result of the Project, particularly since Denver Water would not divert additional West Slope water in dry years. Additionally, diversions during winter months would occur in 2 years during the 45-year study period. In winter months when additional diversions take place, bypass flows would usually be equal to or higher than the average winter flows and always higher than the minimum flow.</p> <p>Comment #1711-5 (ID 2347): <i>In addition, the DEIS also fails to include existing assessments of the cumulative impacts of the Moffat</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>Project and WGFP. The Grand County Stream Management Plan works to assess the cumulative impacts of current as well as proposed operations on the Upper Colorado River. This document identifies mechanisms to avoid and mitigate those cumulative impacts.</i></p> <p>Response #1711-5: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The EIS analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water related resources such as water quality, aquatic biological resources, and stream morphology are anticipated to be negligible to minor.</p> <p>The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Comment #1711-6 (ID 2346): <i>Many of the areas of concern around the cumulative impacts deal directly with stream flows. The DEIS does address both baseline flows and low flows (albeit insufficiently); however, there is little analysis of the impact to peak flows. Sustained peak flows at key times of the year are required to mimic the natural flow regime and ensure the health and resilience of the rivers. Periodic spring high flows (flushing flows) are</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>extremely important to the configuration of a streambed and the removal of sediment. In 2005, the Fraser River was listed as the third most endangered river in North America. Showing signs of deterioration, it was rapidly approaching the point where it could no longer sustain a healthy trout fishery and ecosystem. Continued additional diversions will further degrade West Slope ecosystems and threaten miles of prized trout and wildlife habitat.</i></p> <p>Response #1711-6: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Regarding the Fraser River's listing as the third most endangered river in North America, information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, that portion of the comment is simply noted.</p> <p>Comment #1711-4 (ID 2345): <i>The DEIS contains little analysis of the impacts to water quality and fails to adequately assess the impacts of increased water temperatures, sedimentation, and increased concentrations of nutrients. Reductions in stream flow during the summer months can contribute to higher water</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>temperatures on hot summer days. Temperatures exceeding regulatory limits have already occurred in the Fraser River and Ranch Creek in July and August. Water temperatures exceeding 70 degrees Fahrenheit can severely impact trout.</i></p> <p>Response #1711-4: Most of the additional diversions with the Project would occur in May, June, and July of wet and average years, as discussed in Sections 4.6.1 and 5.1 of the FEIS. There would be no additional diversions in dry years. Therefore, the additional diversions usually would not occur during the late summer period of low flow and highest water temperatures. FEIS Sections 3.11, 4.6.11, and 5.11 have been updated to include revised discussions of these issues including low flows and water temperatures in summer.</p> <p>Comment #1711-3 (ID 2344): <i>Without periodic flushing flows, sediment from soil erosion and from traction sand utilized on US Highway 40 along the Fraser River can destroy the trout redds key to their reproduction and can smother the macroinvertebrates which serve as trout food. This sedimentation can ultimately destroy the trout habitat and ecosystem.</i></p> <p>Response #1711-3: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>An additional sediment sampling and transport modeling site was added on the Fraser River to better</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>understand impacts of traction sand. Historic responses of the Fraser River were also completed using aerial photographs, gaging data and channel cross section to evaluate past impacts. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes considering traction sand are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>A discussion of the effects of flushing flows on aquatic resources was included in the DEIS and an expanded discussion is included in FEIS Sections 3.33, 4.6.11, and 5.11. The DEIS evaluated the effects of sediment on aquatic organisms. FEIS Sections 3.11, 4.6.11, and 5.11 has been modified to incorporate updated information on sediment conditions in the streams in the Project area. The effects of sediment on fish and aquatic macroinvertebrates, including EPT species, has been included in these sections of the FEIS.</p> <p>Comment #1711-2 (ID 2343): <i>The DEIS fails to discuss the exacerbation of the diminishing clarity and increasing algae counts in Grand Lake as a result of the cumulative depletions from the Moffat Project and WGFP. The nutrients from effluent discharges along the Fraser River during periods of depleted stream flow will result in increased nutrient concentrations being carried into Grand Lake. The effluent flows tend to be higher due to infiltration at the time of the added stream depletions. The depletions will also occur during a period of a high influx of sediment borne phosphorus and when runoff from agricultural lands carry additional nutrients into the stream, adding to the problem in Grand Lake.</i></p> <p>Response #1711-2: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p>



Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Comment #1711-1 (ID 2342): <i>Mitigation Measures It is imperative that effective mitigation measures are put in place to protect the habitat, wildlife, and local communities that rely on the Upper Colorado River Basin streams for survival. The proposed mitigation measures proposed in the DEIS appear to be somewhat minimal. At a minimum, sustained, healthy, year-round stream flows in the Fraser, Williams Fork, and Upper Colorado Rivers should be ensured in order to support fish, wildlife, and rural communities that depend upon these rivers. The mitigation requirements should be incorporated as conditions of any approved permit for the project. The DEIS also does mention the collaborative negotiations between Denver Water and other entities pursuing additional environmental enhancement opportunities separate from the EIS process. These conversations and opportunities should be included in the DEIS and be subject to public review and comment. One has to remember that water is a finite resource. Denver Water in partnership with its customers and community stakeholders must develop a long-term, sustainable solution to meeting Front Range municipal water demands that minimize the harmful impacts on our rivers and streams.</i></p> <p>Response #1711-1: The Corps will include specific mitigation measures that are enforceable through a Section 404 Permit, if issued. CDPHE will also include specific water quality mitigation measures that are enforceable through a Section 401 Certification. USFWS will include specific requirements to protect threatened and endangered species that are enforceable through a BO. In addition, Denver Water has entered into three agreements that would enhance the existing environment and provide additional protections: CRCA, LBD Cooperative Effort, and Fish and Wildlife Enhancement Plan, copies of which are provided in FEIS Appendix M.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Each of these plans will be implemented through permanent agreements between the parties. The Corps will consider these agreements, along with all “reasonably foreseeable future actions” in its decision process regarding the proposed Moffat Project. These agreements are not intended to mitigate the impacts of the proposed Project; instead, the purpose is to improve existing conditions of aquatic environments in the Colorado River Basin should Gross Reservoir be enlarged.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1715 Dean Lancaster</p>	<div style="text-align: right;">March 4, 2010</div> <p>to: Scott Franklin, Moffat EIS Project Mgr. U.S. Army Corps of Engineers 9307 S Wadsworth Blvd Denver CO 80128</p> <p>ref: Project #2035 Expansion of Gross Dam, Boulder County, Colorado</p> <p>Adding to Gross Dam's water storage capability will guarantee that Denver and other nearby towns will be able to grow in the future.</p> <p>I don't want that.</p> <p>People often say that growth is inevitable. No – it is inevitable when you plan for it. We have too many people, living too close together, using too much water, drawing it from too far away. You can not just keep on this track forever. Let's stop while we still have some land that isn't jam packed with people.</p> <p>If we continue to take land to build on and to flood, to take water long distances from its natural course (even if legally allowed), to provide for more people to live close together – we will eventually reach an end. It may be a slow death from drought or pollution, or from other effects of over crowding. Can't we be smart enough to see that?</p> <p>If Denver wants more water – too bad. We don't always get what we want. The public has to accept laws that are added and changed every year. What if the water laws changed. You think that is impossible because the government has them the way they want them. But what if the people actually have a say in government someday? They will teach in the schools that people were wrong to push growth. Some dams are being taken down. Now is not the time to enlarge one.</p> <p>The Draft Environmental Impact Statement is all about how to enlarge the dam. But one alternative should be to do nothing. The reasons for that should also be considered in the statement.</p> <p><i>Dean Lancaster</i></p>  	<p>Comment #1715-1 (ID 2341): <i>Adding to Gross Dam's water storage capability will guarantee that Denver and other nearby towns will be able to grow in the future. I don't want that. People often say that growth is inevitable. No - it is inevitable when you plan for it. We have too many people, living too close together, using too much water, drawing it from too far away. You can not just keep on this track forever. Let's stop while we still have some land that isn't jam packed with people. If we continue to take land to build on and to flood, to take water long distances from its natural course (even if legally allowed), to provide for more people to live close together - we will eventually reach an end. It may be a slow death from drought or pollution, or from other effects of over crowding. Can't we be smart enough to see that? If Denver wants more water - too bad. We don't always get what we want. The public has to accept laws that are added and changed every year. What if the water laws changed. You think that is impossible because the government has them the way they want them. But what if the people actually have a say in government someday? They will teach in the schools that people were wrong to push growth. Some dams are being taken down. Now is not the time to enlarge one.</i></p> <p>Response #1715-1: The Corps analyzed demand in the Project area based on demographic projections from various Federal and local sources. The Corps also independently evaluated the demand projections stated in Denver Water's Integrated Resource Plan, which will help guide water management over the next 40 years. As stated in DEIS Section 4.14 and FEIS Section 5.16: "Several recent studies have suggested that there is no substantive causal relationship between population growth and the development of water, or vice versa. One such study is summarized as follows:</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>The relationship between water and growth in the modern West is often misunderstood. Historically, it has been assumed that water development was a necessary precursor to growth and, similarly, that a lack of water development could act as a deterrent to growth. While these premises may have been true at one time, recent experience in Colorado and other western states shows both ideas are now unsupportable. To the contrary, many of the regions showing the highest rates of growth in the West – from Douglas County, Colorado to Las Vegas, Nevada – show the opposite trend; growth is actually highest in some of the driest regions. Similarly the veto of the proposed Two Forks Dam on the East Slope by the EPA in 1990 certainly did not deter growth in the Denver Metropolitan area. Examples also suggest that an abundance of water is often insufficient to stimulate growth. The experience of Pueblo is illustrative (Nichols et al. 2001).</p> <p>Numerous other studies analyzing the relationship between growth and water reach similar conclusions, such as Western Land Use Trends and Policy: Implications for Water Resources (Riebsame 1997); Atlas of the New West (Center of the American West 1997); and Water in the West: The Challenge for the Next Century (Western Water Policy Review Advisory Commission 1998). This growth issue was evaluated and dismissed by the Corps during the NEPA analysis of the Two Forks Dam and Reservoir Project in 1988 – “As a result of including the No Federal Action scenario, the Corps was able to answer a major question then being asked – would growth continue in the Denver Metropolitan area without Federal approval of a major water supply project. The evaluation of the No Federal Action scenario determined that growth would occur regardless of Federal action” (Corps 1998, page 3-3 of the Metropolitan Denver Water Supply FEIS, Volume 1).</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Independent studies, such as the State-wide Water Supply Initiative, commissioned by the State of Colorado anticipate high growth rates for Colorado, including the East Slope. These high growth rates are likely to occur regardless of what water projects are constructed.</p> <p>Comment #1715-2 (ID 2340): <i>The Draft Environmental Impact Statement is all about how to enlarge the dam. But one alternative should be to do nothing. The reasons for that should also be considered in the statement.</i></p> <p>Response #1715-2: Please see the description of the No Action Alternative in Section 2.10 of the DEIS.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1716 Judy and George Lehmkuhl</p>	<div style="text-align: center;">  </div> <p> Hello! I am sure by now you have received many letters on the subject of the Gross Dam expansion proposal. There are of course many facts and many emotions involved. I am mostly impressed with the illogic of the entire proposal. </p> <p> It is illogical to take water from where it is needed, and move it to a larger reservoir which will waste more water in evaporation, to feed a small amount to a city which may never (and with conservation would never) need it. Or to sell it to the Candelas sprawl which none of us need. It was very illogical for Arvada to give the Candelas developers "carte blanche" with no future reviews! </p> <p> It is illogical to spend so much time and effort and money to enlarge a dam that is adequate as it stands. </p> <p> It is illogical to cut thousands of trees which use carbon dioxide and provide oxygen, at a time when many trees are dying of the beetle and the balance of gases in our atmosphere appears to be critical. Those trees would need to be cut and disposed of in some manner, all of the suggestions of which appear wasteful at best, pollutive and dangerous. </p> <p> Perhaps my greatest concern is the proposal to haul sand and gravel and whatever supplies up Highway 72 and on Gross Dam Road. As the recent train derailment proved, 72 is our reasonable and constant access to the canyon. To tie it up with increased traffic 24-7-5 years is illogical, probably illegal, and extremely dangerous. (what does CDOT have to say?) What if there were, and there inevitably will be, an accident or spill? Highway 72 is our morning and evening commute, our access to the metro area, the corridor of school buses and emergency vehicles. What if there were a fire or medical emergency and the access was blocked by truck after truck of gravel? This is a frightening scenario. </p> <p> A number of other odd questions arise. What do the homeowners on the northwest shore do when their land becomes lakeside property and the rising water washes out the hillsides? </p> <p> What of the drowning of the great fishing stream between Gross and Pinedcliffe? </p> <p> What of the intrusive presence in our lives of lights, noise, busyness, when we came here for peace and quiet? The process of zoning is to protect our status quo. The distances these intrusions affect are large and unmitigatable. </p> <p> Thank you for hearing us. Please do not allow this expansion to occur. </p> <p> <i>If we are also canoe and kayak area and have very much enjoyed the access to Gross. This also needs to be saved.</i> <i>Judy & George Lehmkuhl</i> </p>	<p>Comment #1716-2 (ID 2339): <i>I am sure by now you have received many letters on the subject of the Gross Dam expansion proposal. There are of course many facts and many enormous involved. I am mostly impressed with the illogic of the entire proposal. It is illogical to take water from where it is needed, and move it to a larger reservoir which will waste more water in evaporation, to feed a small amount to a city which may never (and with conservation would never) need it. Or to sell it to the Candelas sprawl which none of us need. It was very illogical for Arvada to give the Candelas developers "carte blancher with no future reviews! It is illogical to spend so much time and effort and money to enlarge a dam that is adequate as it stands.</i> </p> <p>Response #1716-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA. </p> <p>Comment #1716-4 (ID 2338): <i>It is illogical to cut thousands of trees which use carbon dioxide and provide oxygen, at a time when many trees are dying of the beetle and the balance of gases in our atmosphere appears to be critical. Those trees would need to be cut and disposed of in some manner, all of the suggestions of which appear wasteful at best, pollutive and dangerous.</i> </p> <p>Response #1716-4: The permanent loss of vegetation around Gross Reservoir was identified as an unavoidable adverse impact of the Project (DEIS Section 4.5.8). </p> <p> GHG emissions from the Project have been estimated and incorporated in the summary tables of construction emissions presented in Section 5.13 (Air Quality). The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and all </p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>other Project construction equipment. Detailed emission calculation spreadsheets and references are presented in Appendix I. Information about the carbon value of the trees at Gross Reservoir has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>Comment #1716-6 (ID 2337): <i>Perhaps my greatest concern is the proposal to haul sand and gravel and whatever supplies up Highway 72 and on Gross Dam Road. As the recent train derailment proved, 72 is our reasonable and constant access to the canyon. To tie it up with increased traffic 24-7-5 years is illogical, probably illegal, and extremely dangerous. (what does CDOT have to say?) What if there were, and there inevitably will be, an accident or spill? Highway 72 is our morning and evening commute, our access to the metro area, the corridor of school buses and emergency vehicles. What if there were a fire or medical emergency and the access was blocked by truck after truck of gravel? This is a frightening scenario.</i></p> <p>Response #1716-6: The anticipated construction schedule for the Proposed Action is 4 years.</p> <p>Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns. Emergency vehicles would have access to the same response routes during construction that currently exist. If an emergency vehicle needed access to a closed road, access would be granted. Additionally, construction contractors would pull over to allow emergency response vehicles to pass as needed.</p>

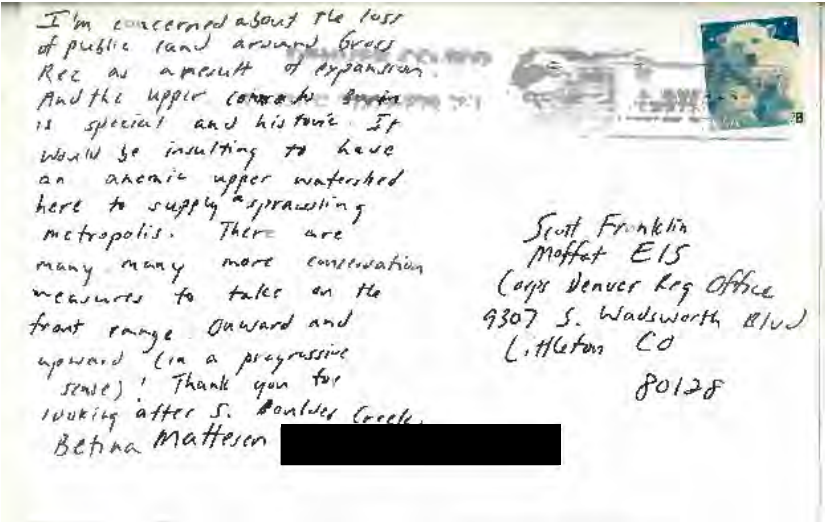
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Comment #1716-3 (ID 2336): <i>A number of other odd questions arise. What do the homeowners on the northwest shore do when their land becomes lakeside property and the rising water washes out the hillsides?</i></p> <p>Response #1716-3: FEIS Section 5.19 includes an expanded discussion about the impacts to communities surrounding Gross Reservoir, addressing in detail the impacts both during construction and once the expansion is complete. Under the Proposed Action, which includes the largest reservoir expansion of any alternatives, reservoir water levels would rise about 118 feet; that increase in water level would not result in private residences becoming lakeside property.</p> <p>Comment #1716-5 (ID 2335): <i>What of the drowning of the great fishing stream between Gross and Pinecliffe?</i></p> <p>Response #1716-5: FEIS Section 3.11 has been revised to include a description of the affected environment in the Gross Reservoir tributaries. FEIS Sections 4.6.11 and 5.11 have been revised to include the impacts of the expanded Gross Reservoir on aquatic resources in the tributaries and SBC.</p> <p>Comment #1716-1 (ID 2334): <i>What of the intrusive presence in our lives of lights, noise, busyness, when we came here for peace and quiet? The process of zoning is to protect our status quo. The distances these intrusions affect are large and unmitigatable. Thank you for hearing us. Please do not allow this expansion to occur.</i></p> <p>Response #1716-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's</p>



Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>environmental effects according to NEPA.</p> <p>Comment #1716-7 (ID 2333): <i>Yes, we are also canoe and kayakers and have very much enjoyed the access to Gross. This also needs to be saved.</i></p> <p>Response #1716-7: The Corps has reviewed the recreation analysis and has provided additional information and revisions for clarity in FEIS Section 5.15. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1717 Betina Mattesen</p>	 <p>I'm concerned about the loss of public land around Gross Res. as a result of expansion. And the upper Colorado Basin is special and historic. It would be insulting to have an anemic upper watershed here to supply a sprawling metropolis. There are many many more conservation measures to take on the front range. Onward and upward (in a progressive sense)! Thank you for looking after S. Boulder Creek.</p> <p>Betina Mattesen [REDACTED]</p> <p>Scott Franklin Moffat EIS (Corps Denver Reg Office 9307 S. Wadsworth Blvd) Littleton CO 80128</p>	<p>Comment #1717-1 (ID 5137): I'm concerned about the loss of public land around Gross Reservoir as a result of expansion. And the Upper Colorado Basin is special and historic. It would be insulting to have an anemic upper watershed here to supply a sprawling metropolis. There are many, many more conservation measures to take on the front range. Onward and upward (in a progressive sense)! Thank you for looking after S. Boulder Creek.</p> <p>Response #1717-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

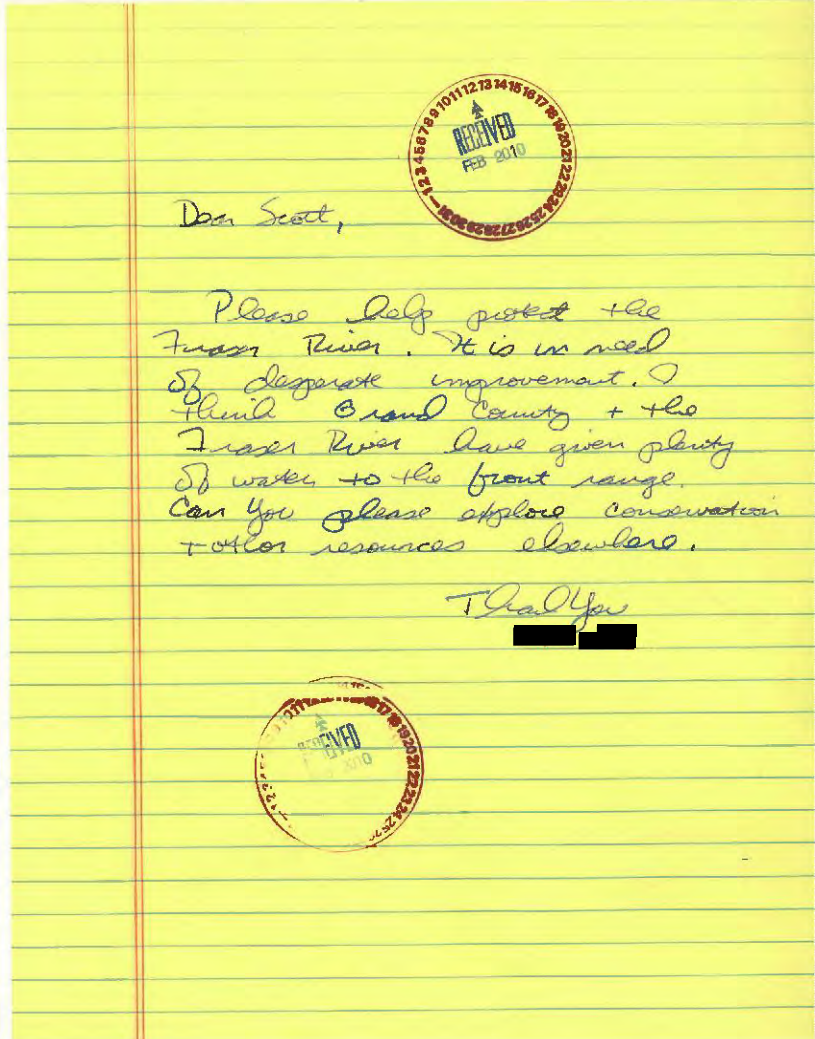
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1718 Herb Meyring</p>	<p>March 11, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Co. 80128</p> <p>Dear Scott,</p> <p>I have attended meetings on the Moffat Firing Project where they gave all the statistics about flow rate that is required to keep a river healthy. Some people take the stand that the statistics are just 'science' and not true reality. Has anyone from the Denver Water Board actually looked at the Fraser River and seen the algae growing and lack of flow that is causing sediment to collect?</p> <p>Have the Denver Water Board members thought about what would happen to a community if it lost its water source that they have relied on for generations?</p> <p>Maybe the greater Denver area needs to be educated in water conservation, again. The residential and commercial users of water should understand the importance of keeping water consumption to a minimum. When it comes to water consumption the supply and demand process does not apply. Mother nature only provides so much moisture, which varies each year. You cannot go to the manufacture and request more product when the demand is steadily increasing. With the increase in population and more land being developed the time has come to be more efficient with water management. The draught that Denver experienced in the mid 70's could happen again.</p> <p>Thank you, <i>Herb Meyring</i> Herb Meyring</p>  	<p>Comment #1718-3 (ID 2332): <i>I have attended meetings on the Moffat Firing Project where they gave all the statistics about flow rate that is required to keep a river healthy. Some people take the stand that the statistics are just 'science' and not true reality. Has anyone from the Denver Water Board actually looked at the Fraser River and seen the algae growing and lack of flow that is causing sediment to collect?</i></p> <p>Response #1718-3: Rock snot (Didymo) is a native species of algae. A discussion of this issue was included in the DEIS and an expanded discussion is included in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>The presence of sediment at a site, particularly during low flows, does not mean that overall a channel is aggrading. Numerical analyses indicate that sediment supply and sediment transport capacity are closest during low flow conditions while transport capacity is much greater than supply at higher flows. Modeling results indicate that on a long-term basis, transport capacity exceeds supply, therefore over extended periods of time aggradation is not anticipated.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Comment #1718-1 (ID 2331): <i>Have the Denver Water Board members thought about what would happen to a community if it lost its water source that they have relied on for generations?</i></p> <p>Response #1718-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1718-2 (ID 2330): <i>Maybe the greater Denver area needs to be educated in water conservation, again. The residential and commercial users of water should understand the importance of keeping water consumption to a minimum. When it comes to water consumption the supply and demand process does not apply. Mother nature only provides so much moisture, which varies each year. You cannot go to the manufacture and request more product when the demand is steadily increasing. With the increase in population and more land being developed the time has come to be more efficient with water management. The draught that Denver experienced in the mid 70's could happen again.</i></p> <p>Response #1718-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>


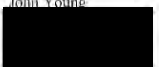
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1721</p> <p>-- --</p>	 <p>Don Scott,</p> <p>Please help protect the Fraser River. It is in need of desperate improvement. I think Grand County + the Fraser River have given plenty of water to the front range. Can you please explore conservation + other resources elsewhere.</p> <p>Thank You</p>	<p>Comment #1721-1 (ID 5138): Please help protect the Fraser River. It is in need of desperate improvement. I think Grand County & the Fraser River have given plenty of water to the front range. Can you please explore conservation & other resources elsewhere.</p> <p>Response #1721-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1735 John Young</p>	<div style="text-align: center;">  </div> <p>Scott Franklin, Moffat EIS Project manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd Littleton, CO 80128</p> <p>Scott,</p> <p>I am writing with concerns about the Fraser and Colorado Rivers and the impact of the proposed Denver Water Boards Moffat Firing Project as well as the Windy Gap Firing Project on these rivers and the health of the ecosystem. As a boater, both kayak and raft, for over twenty years on both the Fraser and Colorado rivers, it dismays me to think that even MORE of the water could be diverted to the east slope. With the current removal of 60% of the Fraser water to the Front Range and the impact I see that having, I can't imagine what will happen when another 20% will be taken. Boater's days of utilizing these rivers will surely come to an end.</p> <p>For the Fraser, the last time I could boat for any length of time from Tabernash to Granby, was the 1999 season. Since that time, there have been only two or three years when there was enough water to boat, and one of those years it was literally one day where it was runnable and the other two years we had about a week or two open. For a raft, flows need to be in excess of 700 to 1000 cfs to be safe while with a kayak we have gone as low as 400 cfs. We also boat in the Byers Canyon with a similar pattern of runability being experienced, that is, most years it is not runnable. This lack of 'flushing flows' for any extended period of times affects not only a boater's opportunity to use the river but also impacts the ecology of the river.</p> <p>Questions/Concerns I have about the project:</p> <ol style="list-style-type: none"> 1. When does Front Range growth stop? Rivers and water are a limited resource, while it appears that the metro areas growth is limitless. When Denver Water first obtained the water rights to this water, who could have foreseen what Denver area would look like now, and if they had, would the agreement have been made in the first place? When the Denver area becomes non-stop from Colorado Springs to Fort Collins where will the water come from? There has to be a reality check and limits imposed on growth. Mother nature just cannot sustain limitless growth of the eastern slope. 2. Water conservation needs to be a larger issue! Over half of the average Front Range water users water consumption of 162 gallons per day is being used for outdoor lawn watering. That is unacceptable in the semi-arid environment that is the east slope. Until water use education and conservation are the backbone of how Denver Water and other Front Range water utilities operate, none of them should be granted the use of more water. Those of us who live where these waters flow and see them on a daily basis have learned the importance of conservation and the Front Range needs to do the same. A mere 10% conservation effort would more than make up for the water that is being proposed to be removed from the Fraser. 	<p>Comment #1735-1 (ID 2318): <i>I am writing with concerns about the Fraser and Colorado Rivers and the impact of the proposed Denver Water Boards Moffat Firing Project as well as the Windy Gap Firing Project on these rivers and the health of the ecosystem. As a boater, both kayak and raft, for over twenty years on both the Fraser and Colorado rivers, it dismays me to think that even MORE of the water could be diverted to the east slope. With the current removal of 60% of the Fraser water to the Front Range and the impact I see that having, I can't imagine what will happen when another 20% will be taken. Boater's days of utilizing these rivers will surely come to an end. For the Fraser, the last time I could boat for any length of time from Tabernash to Granby, was the 1999 season. Since that time, there have been only two or three years when there was enough water to boat, and one of those years it was literally one day where it was runnable and the other two years we had about a week or two open. For a raft, flows need to be in excess of 700 to 1000 cfs to be safe while with a kayak we have gone as low as 400 cfs. We also boat in the Byers Canyon with a similar pattern of runability being experienced, that is, most years it is not runnable. This lack of 'flushing flows' for any extended period of times affects not only a boater's opportunity to use the river but also impacts the ecology of the river.</i></p> <p>Response #1735-1: The most current information available at the time of the DEIS analysis was used in identifying minimum and optimum flows. In the DEIS, the days for minimum and optimum flows were determined from several sources including the Upper Colorado River Basin Study, American Whitewater, and personal interviews with commercial raft guides and private kayakers. The analysis examined daily flows over the course of the full 45 years of record. This same analysis was repeated in FEIS Section 5.15.1.2 but was revised to</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>3. What will happen to the tourist economy of the mountain area when the rivers no longer flow? I am not the only one who boats in these waters. They are fished, boated, and enjoyed by a huge number of Coloradans as well as people from all over the nation. Raft companies, fishing and hunting guides, outdoor stores, restaurants and all of the support businesses that abound to support tourism will be negatively effected by the loss of our rivers. This makes up a large part of our state's economy and will be negatively affected by these projects.</p> <p>4. Will the recently complete Grand County Stream Management Plan be incorporated into whatever final decision is reached? The natural environment is ever evolving, and I do not think that anyone can accurately know all of the impacts today that this project will have in the future. Scientists, environmentalists, can make predictions but cannot know for sure. A mistake I believe that was made when Denver Water first acquired the water rights to the Fraser/Colorado River is no ability to allow for modifications/corrections to be made based on what is really happening with the environment. We are stuck with a nearly 100 year old agreement that does not match very well with current realities. Just because Denver Water has the water 'rights' does not make it 'right' to take that water if it is detrimental to the environment and there should be in place a way to revisit the agreement to ensure the impacts are not too damaging and that what was agreed on is being followed by all parties involved.</p> <p>In conclusion, I have read that the Moffat Firing Project will be the largest water diversion project since Dillon Dam was completed. This is huge and so important for the health and future of our ecosystem. I have lived in Grand County since 1984 and seen many changes. This one will I believe has the potential be the biggest most damaging change of all. I hope that the combined effects of both the Moffat and Windy Gap Firing Projects will be considered together as their effects will have a cumulative effect on the waterways of the western slope.</p> <p>Thank-you for your time.</p> <p>Sincerely,</p> <p> John Young </p>	<p>compare Current Conditions (2006) to Full Use with a Project Alternative (2032) using daily flows over the full 45 years of record.</p> <p>Comment #1735-2 (ID 2317): <i>Questions/Concerns I have about the project: 1. When does Front Range growth stop? Rivers and water are a limited resource, while it appears that the metro areas growth is limitless. When Denver Water first obtained the water rights to this water, who could have foreseen what Denver area would look like now, and if they had, would the agreement have been made in the first place? When the Denver area becomes non-stop from Colorado Springs to Fort Collins where will the water come from? There has to be a reality check and limits imposed on growth. Mother nature just cannot sustain limitless growth of the eastern slope.</i></p> <p>Response #1735-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1735-3 (ID 2316): <i>2. Water conservation needs to be a larger issue! Over half of the average Front Range water users water consumption of 162 gallons per day is being used for outdoor lawn watering. That is unacceptable in the semi-arid environment that is the east slope. Until water use education and conservation are the backbone of how Denver Water and other Front Range water utilities operate, none of them should be granted the use of more water. Those of us who live where these waters flow and see them on a daily basis have learned the importance of conservation and the Front Range needs to do the same. A mere 10% conservation effort would more than make up for the water that is being proposed to be removed from the Fraser.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1735-3: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>As shown in FEIS Table 1-1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>as described in FEIS Appendix A and research from the American Water Works Association was incorporated into the calculations of natural replacement savings. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1735-4 (ID 2315): <i>3. What will happen to the tourist economy of the mountain area when the rivers no longer flow? I am not the only one who boats in these waters. They are fished, boated, and enjoyed by a huge number of</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>Coloradoans as well as people from all over the nation. Raft companies, fishing and hunting guides, outdoor stores, restaurants and all of the support businesses that abound to support tourism will be negatively affected by the loss of our rivers. This makes up a large part of our state's economy and will be negatively affected by these projects.</i></p> <p>Response #1735-4: The socioeconomic impacts in Grand County are driven in part by the conclusions about impacts upon other resources (recreation, visual resources, surface water, etc.) and the resulting impacts upon overall tourism and economic activities that occur in the county. The analysis of socioeconomic impacts to Grand County was reviewed and expanded as appropriate in FEIS Section 5.19 to revise or support the socioeconomic conclusions.</p> <p>Comment #1735-5 (ID 2314): <i>4. Will the recently complete Grand County Stream Management Plan be incorporated into whatever final decision is reached? The natural environment is ever evolving, and I do not think that anyone can accurately know all of the impacts today that this project will have in the future. Scientists, environmentalists, can make predictions but cannot know for sure. A mistake I believe that was made when Denver Water first acquired the water rights to the Fraser/Colorado River is no ability to allow for modifications/corrections to be made based on what is really happening with the environment. We are stuck with a nearly 100 year old agreement that does not match very well with current realities. Just because Denver Water has the water 'rights' does not make it 'right' to take that water if it is detrimental to the environment and there should be in place a way to revisit the agreement to ensure the impacts are not too damaging and that what was agreed on is being followed by all parties involved.</i></p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1735-5: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11 and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Comment #1735-6 (ID 2313): <i>In conclusion, I have read that the Moffat Firming Project will be the largest water diversion project since Dillon Dam was completed. This is huge and so important for the health and future of our ecosystem. I have lived in Grand County since 1984 and seen many changes. This one will I believe has the potential be the biggest most damaging change of all. I hope that the combined effects of both the Moffat and Windy Gap Firming Projects will be considered together as their effects will have a cumulative effect on the waterways of the western slope.</i></p> <p>Response #1735-6: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>River from the Fraser River to the Blue River is influenced by a number of East Slope entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project.”</p> <p>Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p>







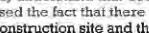
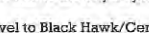
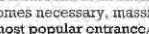
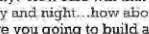
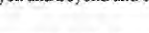
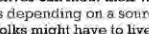
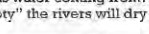
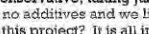
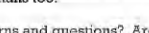
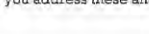





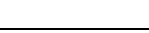





Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1736 John Gallegos</p>	<div style="text-align: center;">  </div> <p>February 1, 2010</p> <p>Denver Water 1600 W. 12th Ave. Denver Co. 80204</p> <p><u>Attention Brian Gogas:</u></p> <p>Dear Mr. Gogas,</p> <p>As a resident of Coal Creek Canyon I realize that the Denver Water Company must increase their water supply to keep up with the demand. However, disrupting our way of life for many years to come and we have no opportunity to yea or nay this project is not acceptable. We have lived here for over 30 years and this project will affect our lives dramatically, as well as other canyon residents and residents beyond our canyon.</p> <p>It is difficult to stand by when others wish to ruin our roads, compromise our safety, alter our lives, effect our water and ultimately property values. What about wildlife habitat, it too will be forever changed, as well as the supply of water you seek to use for profit and growth, how long will that last?</p> <p>I would thank you for a prompt response to this letter, as well as assurance that the above is thought out and issues addressed and solved...as well as why you feel this is necessary.</p> <p>Sincerely yours,</p> <p>Mr. John Gallegos</p> <p>Cc: Scott Franklin, Moffat EIS Project Mgr.</p> <p style="color: red; font-family: cursive;">Copy</p>	<p>Comment #1736-1 (ID 1892): <i>As a resident of Coal Creek Canyon I realize that the Denver Water Company must increase their water supply to keep up with the demand. However, disrupting our way of life for many years to come and we have no opportunity to yea or nay this project is not acceptable. We have lived here for over 30 years and this project will affect our lives dramatically, as well as other canyon residents and residents beyond our canyon. It is difficult to stand by when others wish to ruin our roads, compromise our safety, alter our lives, effect our water and ultimately property values. What about wildlife habitat, it too will be forever changed, as well as the supply of water you seek to use for profit and growth, how long will that last? I would thank you for a prompt response to this letter, as well as assurance that the above is thought out and issues addressed and solved...as well as why you feel this is necessary.</i></p> <p>Response #1736-1: Road Maintenance and Safety CDOT is responsible for maintenance of the State highways such as SH 72. Boulder County is responsible for maintenance of county roads such as Gross Dam Road (CR 77S). Boulder County maintains CR 77S from SH 72 to the railroad tracks. Denver Water currently maintains Gross Dam Road from the railroad track crossing to Flagstaff Road. Denver Water is currently in discussions with Boulder County to address possible impacts to the portion of CR 77S maintained by Boulder County. During construction, Denver Water or its contractor would be responsible for maintaining all of Gross Dam Road.</p> <p>The Corps assumes that construction contractors would comply with health and safety plans and codes instituted by their respective companies and Denver Water. A contractor hired by Denver Water would be in charge of construction activity, including safety</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>compliance. Denver Water also plans to have staff on-site during construction.</p> <p>Property Values An expanded analysis of impacts to communities surrounding Gross Reservoir is included in FEIS Section 5.19, including an evaluation of impacts to property values.</p> <p>Wildlife Habitat Loss of habitat to various types of wildlife including elk was addressed in DEIS Section 4.7. The Corps has consulted with the USFWS and CPW to ensure compliance with wildlife protection regulations (e.g., ESA, FWCA, Migratory Bird Treaty Act) and by identifying appropriate mitigation measures to minimize and avoid impacts to wildlife.</p> <p>Profits Denver Water is a not-profit public utility that is governed by the Denver City Charter.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1737 Jane Gallegos</p>	<div style="text-align: center;">                            </div> <p>February 1, 2010</p> <p>Denver, Water Co. 1600 W. 12th Ave. Denver Co. 80204</p> <p>Attention Brian Gogas</p> <p>I'm concerned....and I thought I would let you know just WHY I am concerned and to ask what you can do to ease my concerns.</p> <p>We (Coal Creek Canyon residents) understand that Gross Dam is planning to expand in the near future. Have you addressed the fact that there will be many trucks hauling equipment/dirt/materials to the construction site and there is but one way in and one way out of our canyon, Highway 72 East and to the city beyond.</p> <p>Yes, we are aware that we can travel to Black Hawk/Central City and/or Nederland to leave the canyon, or use the Gross Dam road in an emergency...the train derailment and fires come to mind...when it becomes necessary, massive rock slides, car wrecks, road closure, etc. Hwy. 72 East is the most popular entrance/exit to our canyon - It is safer, shorter and a direct route to the city. How safe will that highway be with behemoth trucks up and down at all times of the day and night...how about pollution and what about noise. Are you airlifting materials in? Are you going to build another road? Have you thought about those of us living in the canyon and beyond and our safety and way of life?</p> <p>Why are you planning this? So Denver can meet their water needs in the future? No, it is not for Denver, but for other areas depending on a source of water. Water is a most precious commodity - without it, folks might have to live in apartments, and sprawl would cease - imagine that. Where is this water coming from? Do we have enough to capture even more - when it runs on "empty" the rivers will dry up. What then?</p> <p>We live with a well, we are very conservative, taking just what we need. Our water is pure and drinkable and there are no additives and we like it that way - Will our wells be replenished if you divert water to this project? It is all interconnected you know, life, nature, animals and trees and humans too.</p> <p>Are you able to answer my concerns and questions? Are you able to diminish my fears? What are the answers and how do you address these and many more issues?</p> <p>Sincerely yours,</p> <p>Mrs. Jane Gallegos</p> <p style="color: red; font-style: italic;">Copy</p>	<p>Comment #1737-1 (ID 1896): <i>I'm concerned....and I thought I would let you know just WHY I am concerned and to ask what you can do to ease my concerns. We (Coal Creek Canyon residents) understand that Gross Dam is planning to expand in the near future. Have you addressed the fact that there will be many trucks hauling equipment/dirt/materials to the construction site and there is but one way in and one way out of our canyon, Highway 72 East and to the city beyond. Yes, we are aware that we can travel to Black Hawk/Central City and/or Nederland to leave the canyon, or use the Gross Dam road in an emergency....the train derailment and fires come to mind...when it becomes necessary, massive rock slides, car wrecks, road closure, etc. Hwy. 72 East is the most popular entrance/exit to our canyon - It is safer, shorter and a direct route to the city. How safe will that highway be with behemoth trucks up and down at all times of the day and night...how about pollution and what about noise. Are you airlifting materials in? Are you going to build another road? Have you thought about those of us living in the canyon and beyond and our safety and way of life?</i></p> <p>Response #1737-1: The Corps acknowledges that there would be delays caused by slow-moving construction vehicles on CR 77 South, SH 72, SH 93, SH 128, US 287, Arapahoe Road (US 287 bypass to County Line Road), County Line Road and CR 2050. During construction, the volume of construction traffic could vary day-to-day and month-to-month, depending on the type and number of construction activities taking place. Based on preliminary construction plans, about 22 haul and supply trucks could travel to Gross Dam each day on average. During the peak construction period, about 35 trucks could deliver material daily. Additional trucks could be used to remove trees and debris from the reservoir site at the appropriate time. The number of commuting workers could vary considerably. An</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>average of 60 commuter vehicles could make daily trips to Gross Reservoir, with about 100 expected on the busiest construction days. Denver Water would require contractors to encourage carpooling to the work site.</p> <p>The Project would comply with all applicable State and Federal air quality rules, and would cooperate with the CDPHE APCD in ensuring compliance. CDPHE is the State agency responsible for ensuring that Colorado attains, maintains, and enforces the NAAQS. Through the APCD construction permit process and the conformity determination process, the State regulates pollutant emissions that have the potential to endanger public health and welfare. For purposes of EIS analysis, the Corps assumes construction equipment used by the contractors would function as designed and conform to applicable noise emission standards. Denver Water would comply with all applicable noise ordinances and work with Boulder County to identify reasonable and feasible noise abatement measures for the Project construction period. Project materials would not be airlifted to the site. Tree removal residue, however, may be removed by helicopter in some hard to access portions of the reservoir shoreline. Construction access would be obtained using existing roads. In addition, two temporary access roads would be constructed to provide hauling access between the quarry areas, stockpile areas, and the dam raise site. These roads include (1) a haul road (Quarry Access Road) between the quarry site and stockpile area (approximately 3,000 feet long), and (2) an access road (Spillway Construction Access Road) by the auxiliary spillway (approximately 300 feet long). The limited access to the Gross Reservoir shoreline would require the construction of several temporary access roads within the area to be cleared.</p> <p>Comment #1737-2 (ID 1895): <i>Why are you planning this? So Denver can meet their</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>water needs in the future? No, it is not for Denver, but for other areas depending on a source of water. Water is a most precious commodity - without it, folks might have to live in apartments, and sprawl would cease - imagine that. Where is this water coming from? Do we have enough to capture even more - when it runs on "empty" the rivers will dry up. What then?</i></p> <p>Response #1737-2: The Moffat Project is proposed to meet a water supply shortage in the near-term time frame. Denver Water estimates an annual 34,000 AF/yr shortfall in water supplies available to meet the needs of its customers and near-term water commitments. Denver Water is relying on the proposed Moffat Project to meet 18,000 AF/yr of that shortfall. The Moffat Project would also address system-wide vulnerability issues, limited operational flexibility of their treated water system, and an imbalance in reservoir storage and water supplies between Denver Water's North and South system, which makes their water supply for the Moffat Water Treatment Plant (WTP) and Moffat Collection System unreliable in a drought.</p> <p>The water supply to meet an additional 18,000 AF of new firm yield would come from the Fraser River, Williams Fork River, Blue River, South Platte River and South Boulder Creek. Average annual additional diversions under the Proposed Action compared to Full Use of the Existing System would be as follows:</p> <ul style="list-style-type: none"> • Williams Fork River: 1,900 AF/yr (Gumlick Tunnel) • Fraser River Basin: 8,400 AF/yr (Fraser River diversion through Moffat Tunnel) • Blue River Basin: 4,800 AF/yr (Roberts Tunnel) • South Platte River Basin: 2,400 AF/yr (direct diversions and exchanges to Conduit 20) • South Boulder Creek: 1,200 AF/yr <p>Total: 18,700 AF/yr</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Total additional diversions under the Proposed Action would exceed 18,000 AF/yr due to miscellaneous losses in Denver Water's system including conveyance and evaporation.</p> <p>Comment #1737-3 (ID 1894): <i>We live with a well, we are very conservative, taking just what we need. Our water is pure and drinkable and there are no additives and we like it that way - Will our wells be replenished if you divert water to this project? It is all interconnected you know, life, nature, animals and trees and humans too.</i></p> <p>Response #1737-3: Information provided in DEIS Sections 3.1, 3.2 and 4.2 describes the reasons the Project would not impact wells in any of the West Slope basins. These conclusions are supported by the following discussion on groundwater/surface water interactions in the Fraser Valley.</p> <p>Groundwater/Streams Interactions The timing of the proposed diversions for the Moffat Project would not substantially affect recharge to the groundwater flow system in the West Slope watersheds. Rather the Moffat Project would result in minimal effects to recharge, and to groundwater resources overall, for the following reasons.</p> <p>The Moffat Project would not make any changes to the locations or the physical features of any of the existing Denver Water diversion structures west of the Continental Divide. FEIS Figure 3.4-1 shows the Denver Water diversions (red dots) within the Fraser River Basin and subdivides the watershed into areas to facilitate discussion of this concern. Throughout the blue area on Figure 3.4-1, groundwater recharge rates would remain the same as for Current Conditions, both in the upland areas and along the stream channels,</p>



Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>because these areas lie upstream of the Denver Water diversion points. The blue area on Figure 1 constitutes a large percentage of the whole watershed. This relatively large area includes the highest land surface elevations, precipitation rates, and snowpack amounts in this watershed. The geologic map from a recent U.S. Geological Survey Technical Report referenced in DEIS Section 3.2 (Apodaca and Bails 1999) shows glacial deposits and alluvial gravels underlie large portions of the watershed. Fractured crystalline rocks are also exposed in many areas of the basin. Precipitation and snowmelt infiltrate through permeable soils and fractured rocks in upland areas of the basin to become groundwater recharge. Similar hydrogeologic conditions exist in the Williams Fork watershed where there are other Denver Water diversion structures.</p> <p>Figure 3.4-1 also shows another large area (shaded brown) in which the Proposed Action would not affect groundwater recharge rates, neither in the upland areas or along the stream channels, because these areas do not lie downstream of any Denver Water diversion points. Fundamental hydrogeologic concepts indicate substantial recharge of the groundwater flow system occurs throughout the blue and brown areas on Figure 3.4-1. Recharge rates would not change in any of those areas as a consequence of the Moffat Project.</p> <p>Unaffected stream channel segments are depicted with light blue lines on Figure 3.4-1. Along the light blue lines within the darker blue areas (above the diversion points), the rate and volume of groundwater recharge due to seepage through the bottom of stream beds would not change due to the Project at any time of year. In areas downstream of the diversions but outside the stream channel limits (all the white areas on Figure 3.4-1), there also would not be any change in groundwater recharge rates at any time because the</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>hydrogeologic factors controlling infiltration of precipitation and snowmelt into the ground surface would not be altered by the Project. Thus, the Project has no potential to change the groundwater recharge rates within the vast majority of the whole watershed, which includes all the blue, brown and white areas on Figure 3.4-1. For the same reasons, the proposed diversions would have no effect on groundwater recharge rates throughout the vast majority of the Williams Fork River watershed.</p> <p>In the other parts of the Fraser River watershed directly downstream of the diversions, the Moffat Project only has the potential to slightly reduce groundwater recharge rates in the relatively small areas directly beneath and immediately beside the stream channels where the diversions may reduce the extent of seasonal overbank flooding areas. These potentially affected stream channel segments within the Fraser River watershed are shown as gold lines on Figure 3.4-1. DEIS Section 4.2 describes stream flow reductions that could conceivably cause some reduction in the groundwater levels and recharge rates directly.</p> <p>Comment #1737-4 (ID 1893): <i>Are you able to answer my concerns and questions? Are you able to diminish my fears? What are the answers and how do you address these and many more issues?</i></p> <p>Response #1737-4: The Corps reviewed and prepared responses to each of the comments received on the Moffat Project DEIS. The responses are provided in FEIS Appendix N.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1738 Robert D. Johannes</p>	 <p style="text-align: right;">1/13/2010 Robert D. Johannes </p> <p>Mr. Scott Franklin Moffat FIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Colorado 80128</p> <p>Dear Sir,</p> <p>The Denver Water Board (Denver) wants to increase the amount of water it currently diverts from the streams and rivers on the West Slope of the continental divide; transfer that additional water through the trans-basin diversion Moffat Tunnel pipeline, into an expanded reservoir on the East Slope of the continental divide; then distribute that water to residents, businesses and government entities in the various cities of the greater Denver metropolitan area. Denver is required to obtain a permit for this proposal by Section 404 of the U. S. Clean Water Act. The permitting process requires Denver to prepare a Draft Environmental Impact Statement for review by the U. S. Army Corps of Engineers, U. S. Environmental Protection Agency, U.S. Fish And Wildlife Service, citizens of the United States and other interested third parties.</p> <p>I write in opposition to the Denver Moffat Collection System Draft Environmental Impact Statement (Moffat Deis).</p> <p>I reached two conclusions after reviewing the Moffat Deis and other readily available information. First, Denver has not implemented water conservation actions to the extent practicable to avoid further damage to West Slope wetlands. Second, Denver omitted pertinent information from the Cumulative Effects Analysis making the set of proposed West Slope mitigations substantially less than what is required. The rationale for my conclusions is presented in the remainder of this letter.</p> <p><u>DENVER HAS NOT IMPLEMENTED WATER CONSERVATION ACTIONS TO THE EXTENT PRACTICABLE TO AVOID FURTHER DAMAGE TO WEST SLOPE WETLANDS</u></p> <p>According to the EPA Wetland Regulatory Authority Fact Sheet:</p> <p style="padding-left: 40px;">When you apply for a section 404 permit, you must show that you have, to the extent practicable taken steps to avoid wetland impacts.</p> <p>Water conservation through efficient utilization of existing water supplies is the first step to minimize the need for further trans-basin diversions and therefore minimize the impacts on West Slope wetlands.</p> <p>Between 1980 and 2002 Denver conserved 8.8% of their total water demand.⁸</p> <p>An outside review of Denver's water conservation efforts (which Denver paid for) indicates that the results of those efforts were woefully below expectations:</p> <p style="padding-left: 40px;">Denver Water estimates that a total of 1400 acre feet was conserved between 1996 and 2000, stemming from indoor and outdoor incentive programs and educational measures. Clearly, much more aggressive programs will need to be devised and implemented to come close to achieving the goals for 2030 and build out (2050).⁹</p> <p style="text-align: center;">Page 1 of 7</p>	<p>Comment #1738-1 (ID 2250): <i>The Denver Water Board (Denver) wants to increase the amount of water it currently diverts from the streams and rivers on the West Slope of the continental divide; transfer that additional water through the trans-basin diversion Moffat Tunnel pipeline, into an expanded reservoir on the East Slope of the continental divide; then distribute that water to residents, businesses and government entities in the various cities of the greater Denver metropolitan area. Denver is required to obtain a permit for this proposal by Section 404 of the U. S. Clean Water Act. The permitting process requires Denver to prepare a Draft Environmental Impact Statement for review by the U. S. Army Corps of Engineers, U. S. Environmental Protection Agency, U.S. Fish And Wildlife Service, citizens of the United States and other interested third parties.</i></p> <p>Response #1738-1: The Corps is the lead Federal agency for the Moffat Project and thus is in charge of developing a NEPA compliance document. A DEIS was published in October 2009. The EPA is a Cooperating Agency on the Moffat Project and reviewed the Preliminary DEIS and the DEIS. Pursuant to Section 7 of the ESA, the Corps coordinated with the USFWS and obtained a BO on the Project dated July 31, 2009 (see Appendix G-2). The Corps submitted a request for reinitiation of consultation on August 14, 2012, in response to a February 16, 2010 letter from USFWS commenting on the DEIS. After some discussion, USFWS indicated that it would provide two BOs for the Project, one addressing depletions to the Platte and Colorado rivers and additional information on Preble's meadow jumping mouse, and the second addressing impacts to greenback cutthroat trout in the Fraser River and Williams Fork River systems. The Corps submitted a Revised Biological Assessment for depletions and Preble's on August 14, 2013. A Final BO from the</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>Let me put the conservation of 1400 acre feet over a four year period into perspective. Denver's water conservation stemming from indoor and outdoor efforts essentially amounts to a rounding error given the magnitude of water involved. Denver's unrestricted water demand over this four year period of time was 1,250,000 acre feet. Elementary math shows that 1400 acre feet is 0.112%.^{iv}</p> <p>A comparison of Denver's water conservation results with other communities shows that Denver has yet to implement water conservation to the extent shown as practicable.</p> <p>According to June 2003 testimony before the Subcommittee on Water Resources and Environment of the Committee on Transportation and Infrastructure of the United States Congress:</p> <ul style="list-style-type: none"> • Metropolitan Water District of Southern California dropped water use 16 percent from 1990, despite a 14 percent increase in population. • Smart conservation and smart watershed management has saved NYC billions of dollars in avoided expenditures for new supply and water and wastewater treatment plants. Total water use in 2001 was 25 percent below the level of 1979, a savings of 375 million gallons per day. • Water-efficiency programs in the Boston area have reduced water use 30 percent since the late 1980s and eliminated the need for a new dam. • Albuquerque reduced per-capita water use 30 percent between 1989 and 2001 with toilet and washing machine rebate programs, and landscape retrofits. • The City of Seattle has grown 30 percent since 1975 but total water use has remained the same through strong conservation programs. Over this period, per-capita use has dropped from 150 gallons per person per day to around 115 gallons per person per day.^v <p>The Land and Water Fund of the Rockies reported that in 2002 Denver used 200 gallons per capita per day while Tucson got by on 160 gallons per capita per day.^{vi}</p> <p>In 1968 the Colorado River Basin Act authorized construction of the Central Arizona Project (CAP). CAP is a 336 mile long aqueduct that diverts water from the Colorado River into central and southern Arizona. Soon after authorization it was clear that CAP would fail to meet the unrestrained demands of Arizona. Therefore, in 1979, the United States Secretary Of The Interior told the Arizona Governor that no water would be delivered through CAP until Arizona developed a comprehensive water management plan. In 1980 the Arizona Groundwater Management Act became law.^{vii}</p> <p>Between 1985 and 2005 four of the ten most populous cities in the Phoenix Metropolitan Area, Avondale, Goodyear, Peoria and Phoenix reduced their total gallons per capita per day 38%.^{viii}</p> <p>While Denver achieved an 8.8% reduction other communities delivered savings ranging from 15% to 38%. Long after these same communities achieved significant conservation results Denver finally set a modest goal for itself. In 2006, Denver announced plans to reduce per capita consumption 22%, from 211 gallons to 165 gallons by 2016.^{ix} In spite of this new goal Denver will still be far behind what others are <i>already</i> achieving.</p> <p>Denver plans to reduce consumption 23% by 2030 and still divert an additional 18,000 acre feet of water from the streams and rivers of the West Slope. In essence, Denver wants to use the next 20 years to try to achieve something near the 'bottom rung' of water conservation results other communities <i>already</i> achieve. (SEE COLUMN 2 OF TABLE 1)</p> <p>If Denver reduced consumption by 27% there would be no need for additional diversions. This result would still only equal what the 'middle of the pack' of other communities <i>already</i> achieve. (SEE COLUMN 3 OF TABLE 1)</p> <p style="text-align: center;">Page 2 of 7</p>	<p>USFWS was issued on December 6, 2013 that replaced the July 31, 2009 Biological Assessment for depletions and Preble's. The Corps is preparing and will submit a Supplemental BA for greenback cutthroat trout. Section 7 consultation will be completed prior to issuance of the Record of Decision.</p> <p>Comment #1738-4 (ID 2249): <i>I write in opposition to the Denver Moffat Collection System Draft Environmental Impact Statement (Moffat DEIS).</i></p> <p>Response #1738-4: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1738-7 (ID 2248): <i>I reached two conclusions after reviewing the Moffat DEIS and other readily available information. First, Denver has not implemented water conservation actions to the extent practicable to avoid further damage to West Slope wetlands.</i></p> <p>Response #1738-7: There would be no direct impacts to wetlands and riparian areas on the West Slope, because there would be no changes to the diversion structures and no other construction activities for implementation of the Project. Indirect impacts to wetlands on the West Slope would occur from changes in flows resulting from increased diversions in average and wet years during periods of high flow. Changes in stream flows would not occur during low flows or dry years. In addition, stream flow changes are generally not expected to result in reductions in groundwater, and are within the range of normal variability already experienced.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response																														
	<p>in the best case scenario Denver could take the next 20 years to achieve water conservation results similar to what the 'top rung' of communities <u>already</u> achieve. If that were to be the case then the current water supply being diverted from the West Slope would generate a greater surplus than Denver enjoyed in 2002. (SEE COLUMNS 4 AND 1 OF TABLE 1)</p> <table><tr><th>TABLE 1</th><th>Year 2002¹</th><th>Denver Proposal Year 2030 'BOTTOM RUNG' Water Conservation 23%</th><th>Year 2030 'MIDDLE OF THE PACK' Water Conservation 27%</th><th>Phoenix Metro Area Year 2030 'TOP RUNG' Water Conservation 38%</th></tr><tr><td>Unrestricted Demand including Arvada Contract</td><td>312,500</td><td>430,500</td><td>430,500</td><td>430,500</td></tr><tr><td>Water Conservation (All Past and Future Demand Offsetting Actions)</td><td>27,500</td><td>(97,500)</td><td>(115,500)</td><td>(163,500)</td></tr><tr><td>Demand</td><td>285,000</td><td>333,000</td><td>315,000</td><td>267,000</td></tr><tr><td>Supply</td><td>315,000</td><td>315,000</td><td>315,000</td><td>315,000</td></tr><tr><td>Surplus Supply/(Supply Shortfall)</td><td>30,000</td><td>(18,000)</td><td>0</td><td>48,000</td></tr></table> <p>¹Note: All numbers are annual acre feet</p> <p>The water conservation results of other communities demonstrate that further damage to West Slope wetlands can be avoided. Denver has yet to achieve water conservation results close to the practicable level of savings <u>already</u> achieved by other communities. The water conservation results envisioned by Denver over the next 20 years will only bring Denver to the 'bottom rung' of water conservation results that other communities <u>currently</u> achieve. If in the next 20 years Denver achieved the level of savings which the 'top rung' of other communities <u>already</u> conserve then Denver would enjoy a significant solution to its needs beyond its year 2030 forecast.</p> <p><u>DENVER OMITTED PERTINENT INFORMATION FROM THE CUMULATIVE EFFECTS ANALYSIS MAKING THE SET OF PROPOSED WEST SLOPE MITIGATIONS SUBSTANTIALLY LESS THAN WHAT IS REQUIRED</u></p> <p>The U. S. Clean Water Act requires that mitigations must be considered for all significant impacts disclosed in the Moffat DEIS Cumulative Effects Analysis. The current health of the Fraser River, its tributaries and the Colorado River resulting from significant past actions is the basis upon which present and future activities are additive to determine the Moffat DEIS Cumulative Effects. The exclusion of significant past actions leads to a set of proposed West Slope mitigations which fall far short of what is needed.</p> <p>In the 'past or ongoing present actions' section of the Moffat DEIS Cumulative Effects Analysis Denver excluded all West Slope population growth and development claiming that, "no ground disturbing activities would occur on the West Slope"¹, therefore all past land disturbing activities on the West Slope can be excluded. Just because Denver does not envision doing any ground disturbing activities on the West Slope they cannot exclude the past activities of themselves as well as others.</p>	TABLE 1	Year 2002 ¹	Denver Proposal Year 2030 'BOTTOM RUNG' Water Conservation 23%	Year 2030 'MIDDLE OF THE PACK' Water Conservation 27%	Phoenix Metro Area Year 2030 'TOP RUNG' Water Conservation 38%	Unrestricted Demand including Arvada Contract	312,500	430,500	430,500	430,500	Water Conservation (All Past and Future Demand Offsetting Actions)	27,500	(97,500)	(115,500)	(163,500)	Demand	285,000	333,000	315,000	267,000	Supply	315,000	315,000	315,000	315,000	Surplus Supply/(Supply Shortfall)	30,000	(18,000)	0	48,000	<p>Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>As shown in Table 1-1 in FEIS Section 1.4.1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A</p>
TABLE 1	Year 2002 ¹	Denver Proposal Year 2030 'BOTTOM RUNG' Water Conservation 23%	Year 2030 'MIDDLE OF THE PACK' Water Conservation 27%	Phoenix Metro Area Year 2030 'TOP RUNG' Water Conservation 38%																												
Unrestricted Demand including Arvada Contract	312,500	430,500	430,500	430,500																												
Water Conservation (All Past and Future Demand Offsetting Actions)	27,500	(97,500)	(115,500)	(163,500)																												
Demand	285,000	333,000	315,000	267,000																												
Supply	315,000	315,000	315,000	315,000																												
Surplus Supply/(Supply Shortfall)	30,000	(18,000)	0	48,000																												


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>Cumulative Effects are the impact on the environment which results from the incremental impact of the Moffat Deis when added to other past, present and reasonably foreseeable future impacts regardless of what agency or person undertakes such actions.</p> <p>There has been significant growth over the past 80 years in the Upper Colorado and Fraser River basins on the West Slope. This area is now home to a major ski area, thousands of permanent residents, extensive second 'mountain home' developments, numerous year round destination vacation lodgings and significant municipal support services. This is on top of the many ranching entities and expanded recreational activities now present in this area. In order to accommodate this growth the Berthoud Mountain Pass highway, U.S. 40, expanded from a narrow seasonal two lane dirt road to a major three lane thoroughfare demanding two sets of road crews to keep it open year round for our residents and visitors. The impact of this development and its impact on the West Slope wetlands cannot be ignored.</p> <p>Perhaps an even worse attempt to misrepresent the current health of our West Slope wetlands is the information Denver provides relative to the numerous diversions already existing on the west Slope. Denver mentions the trans-basin diversions since 1936 through the Moffat Tunnel and the Big Thompson project however; there is no discussion of the impact of these diversions on the streams and rivers of the West Slope. Denver merely recites the history of these diversion projects. Denver provides no analysis of the impact on the health of aquatic resources from these diversions over the past 80 years.</p> <p>A qualitative review of the impact of these past actions on the trout populations within the Fraser River, its tributaries and the Colorado River depicts a water resource in dire need of rescue.</p> <p>Trout serve as indicators of the health of the watersheds they inhabit. Strong wild trout populations demonstrate that a stream or river ecosystem is healthy and that water quality is excellent. A decline in trout populations serves as a warning that the health of an entire aquatic system is at risk.^{16f}</p> <p>In 1886 a newspaper in Georgetown, Colorado gave us an apt description of the Fraser and Colorado rivers before trans-basin diversions commenced:</p> <p>Middle Park (Grand County) ... is watered by the considerable streams of the Grand (Colorado) and Fraser Rivers, to which are tributary innumerable small brooks and creeks. The streams are all filled with mountain trout in endless variety. As a fishing ground, the waters of the Park have no equal, and sportsmen who delight in the rod and line go in great numbers every summer for a never-failing supply of mountain trout.^{16g}</p> <p>Robert Preston grew up in Middle Park during the 1930's and 40's. In his book he points out that the trout fishing in the Fraser River valley during this time was "exceptionally good." However, his description of the water diversions gives some insight into the damage done on the West Slope:</p> <p>The building of the Moffat Tunnel led to the withdrawals of large quantities of water for shipment to the Eastern Slope. The withdrawals started in 1936 and continuously expanded until all the eastern and southwestern tributaries of the Fraser River had been tapped. This process permanently altered the character of many of the streams in the valley.^{16v}</p> <p>In 1955 the Denver Post described the coming impact from a new trans-basin diversion to Denver. The Fraser River and St. Louis Creek were favorite fishing destinations of President Eisenhower. During the 1950's the town of Fraser became known as the "Western White House":</p>	<p>(Supplemental Evaluation of Denver Water Demand Projections) and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Comment #1738-3 (ID 2247): <i>Second, Denver omitted pertinent information from the Cumulative Effects Analysis making the set of proposed West Slope mitigations substantially less than what is required. The rationale for my conclusions is presented in the remainder of this letter.</i></p> <p>Response #1738-3: Please see the response to Comment ID 2245.</p> <p>Comment #1738-6 (ID 2246): DENVER HAS NOT IMPLEMENTED WATER CONSERVATION ACTIONS TO THE EXTENT PRACTICABLE TO AVOID FURTHER DAMAGE TO WEST SLOPE WETLANDS According to the EPA Wetland Regulatory Authority Fact Sheet[i]: FOOTNOTE: [i] The Wetland Fact Sheet Series, Wetland Regulatory Authority, EPA Office of Water, EPA843-F-04-001 When you apply for a section 404 permit, you must show that you have, to the extent practicable taken steps to avoid wetland impacts. Water conservation through efficient utilization of existing water supplies is the first step to minimize the need for further trans-basin diversions and therefore minimize the impacts on West Slope wetlands. Between 1980 and 2002 Denver conserved 8.8% of their total water demand.[ii] FOOTNOTE: [ii] Table 1-1 Of The Moffat DEIS Shows That As Of 2002, Total</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>Denver's thirst will dry up President Eisenhower's fishing hole soon on the Aksel Nielsen ranch near Fraser. St. Louis creek is one of Ike's favorite trout streams. At an icy 38 degrees the water is an invigorating habitat for scrappy trout. More than 100 heavy construction men are working furiously on a \$1 million diversion program there. Denver plans to divert an average of 19,400 acre feet of water annually from St. Louis creek starting in 1956. That will leave a flow comparable to Turkey Creek, southwest of Denver – a dry bed that is fed for the most part by flash rains in the spring and summer. "Boy, that's going to leave us only a trickle but I guess you can't stand in the way of a thirsty civilization, I'm afraid the trout are doomed," said Aksel Nielsen.³⁹³</p> <p>In the early 1990's we in Grand County began to notice a significant decline in our trout population. This decline can be traced to the existence of the Windy Gap Reservoir and Dam. This impoundment of the confluence of the Fraser and Colorado rivers is part of the Big Thompson Project. This unintended and unforeseen impact is nonetheless a significant impact.</p> <p>Since 1991 there has been a catastrophic decline in the trout population of certain rivers in the intermountain west from whirling disease. However other areas of the west and eastern U. S., while having the same parasite present, don't have catastrophic declines in their trout population. Impoundments, both natural and constructed, are associated with increased whirling disease infection severity. The abundance of whirling disease parasites in the reservoir account for the catastrophic decline in our trout population.³⁹⁴ The disease severity results from a combination of environmental factors such as high water temperatures, low flow regimes, and organic matter in the water. These factors contribute to a warm, silty habitat ideal for whirling disease proliferation.³⁹⁵ These factors affect the parasite, its hosts, and the risk of disease. The confluence of the Fraser and Colorado Rivers, the Windy Gap Reservoir and Dam, has become a perfect breeding ground for the whirling disease parasite, it is a 'hot spot'.³⁹⁶</p> <p>By 2003 the continued destruction of the Fraser River was visibly apparent. The Denver Post again provides us with a riveting description of the situation:</p> <p>Visiting the upper Fraser River last summer, I made a mental note next time to bring beach towels and sand toys. Giant sandbars stretched across the stream doing its best to carve small channels through the thick sediment.</p> <p>Each winter, the Colorado Department of Transportation applies approximately 6,400 tons of sand to the west side of Berthoud Pass, which averages an annual 300 inches of snow. CUDDI admirably recovers half of this sand with vacuuming and excavation, but a lot ends up in the Fraser. A sediment-removal project started in 1995 has yet to see the light of day.</p> <p>The Fraser is an important fishery and recreation river that starts on Berthoud Pass, then flows through Winter Park and Fraser before meeting up with the Colorado River near Granby. It's also an important water source for Denver. Keeping Denver toilets flushing impacts the Fraser's ability to flush away sediment from natural-occurring erosion. Add tons of traction sand tainted with motor oil, and the Fraser doesn't stand a chance.³⁹⁷</p> <p>And in 2003 with the threat of even more trans-basin diversions the Fraser River became #3 on the list of the top ten endangered rivers in the United States.</p>	<p><i>Conservation Savings Since 1980 Were 27,500 Acre Feet Per Year. This Calculated Out To 8.8% Of 2002 Unrestricted Demand Of 312,500 Acre Feet. An outside review of Denver's water conservation efforts (which Denver paid for) indicates that the results of those efforts were woefully below expectations: Denver Water estimates that a total of 1400 acre feet was conserved between 1996 and 2000, stemming from indoor and outdoor incentive programs and educational measures. Clearly, much more aggressive programs will need to be devised and implemented to come close to achieving the goals for 2030 and build out (2050).[iii] FOOTNOTE: [iii] Moffat DEIS, Appendix A Let me put the conservation of 1400 acre feet over a four year period into perspective. Denver's water conservation stemming from indoor and outdoor efforts essentially amounts to a rounding error given the magnitude of water involved. Denver's unrestricted water demand over this four year period of time was 1,250,000 acre feet. Elementary math shows that 1400 acre feet is 0.112%.[iv] FOOTNOTE: [iv] Table 1-1, Summary of Denver Water's Planning Estimates, Moffat DEIS A comparison of Denver's water conservation results with other communities shows that Denver has yet to implement water conservation to the extent shown as practicable. According to June 2003 testimony before the Subcommittee on Water Resources and Environment of the Committee on Transportation and Infrastructure of the United States Congress: •Metropolitan Water District of Southern California dropped water use 16 percent from 1990, despite a 14 percent increase in population. •Smart conservation and smart watershed management has saved NYC billions of dollars in avoided expenditures for new supply and water and wastewater treatment plants. Total water use in 2001 was 25 percent below the level of 1979, a savings of 375 million gallons per day. •Water-efficiency programs in the Boston area have reduced water use 30 percent since the late 1980s and eliminated the need for a new dam.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>For years, the Denver Water Board has siphoned out 65 percent of the Fraser River's water and piped it across the mountain to the Front Range. Now the Denver Water Board plans to increase the amount of water it takes from the Fraser River to a whopping 85 percent of the river's flow. <i>The water boards' additional water withdrawals would reduce stream flows in the river to the bare minimum levels- or even lower- recommended by the Colorado Water Conservation Board to sustain wildlife, fish, and a generally healthy stream.</i> ^{xx}</p> <p>The trans-basin diversions from the rivers and streams of Grand County steadily degrade a once great river system teeming with abundant aquatic wildlife. No discussion of this fact exists in the cumulative effects analysis of the Moffat Dels. By excluding these past actions Denver attempts to create a false impression of the current health of the Fraser River, its tributaries, and the Colorado River. I believe Denver provided a narrow and self serving Cumulative Effects Analysis to minimize the spectrum of proper West Slope mitigations. Denver is clearly attempting to circumvent their responsibilities under section 404 of the Clean Water Act.</p> <p>I enjoy living in Colorado and all that both sides of the Continental Divide have to offer. If Denver aggressively adopts water conservation, as demonstrated by other communities, it can grow and prosper without causing further damage to the wetlands on the West Slope. Adequate mitigation can be developed to restore the minimum stream flows necessary to sustain aquatic life and recreation on the rivers and streams here on the West Slope. All Colorado citizens and visitors to this natural wonderland would then be able to once again see and enjoy the natural, fertile beauty that is Colorado.</p> <p>Sincerely,</p>  <p>Robert D. Johannes</p> <p>cc's:</p> <p>Dana Allen, EPA NEPA Compliance, EPA Region 8 Randy Baumgardner, Colorado State Representative Michael Bennet, U. S. Senator Colonel Thomas C. Chapman, District Engineer, Sacramento District, U. S. Army Corps of Engineers Dan Gibbs, Colorado State Senator Jennifer Gimbel, Director, Colorado Water Conservation Board Steve Guertin, Regional Director, U. S. Fish and Wildlife Service Sam Hamilton, Director, U.S. Fish and Wildlife Service John Hickenlooper, Mayor, City of Denver Lisa Jackson, Administrator, U.S. Environmental Protection Agency Kirk Klanke, President, Headwaters Chapter, Trout Unlimited James Newberry, Commissioner, Grand County Jared Polis, U. S. Representative Bill Ritter, Governor, State of Colorado Colonel Robert Ruch, Commander, Omaha District, U.S. Army Corps of Engineers Ken Salazar, Secretary of the Interior, Department of the Interior Mark Udall, U. S. Senator</p> <p style="text-align: center;">Page 6 of 7</p>	<p><i>•Albuquerque reduced per-capita water use 30 percent between 1989 and 2001 with toilet and washing machine rebate programs, and landscape retrofits.</i></p> <p><i>•The City of Seattle has grown 30 percent since 1975 but total water use has remained the same through strong conservation programs. Over this period, per capita use has dropped from 150 gallons per person per day to around 115 gallons per person per day.[v] FOOTNOTE: [v] Testimony of Dr. Peter H. Gleick before the Subcommittee on Water Resources and Environment Of the Committee on Transportation and Infrastructure, United States Congress Hearing: Water: Is it the 'Oil' of the 21st Century?, June 4, 2003. Dr. Gleick is President of the Pacific Institute, Oakland, California; an Academician of the International Water Academy, Oslo, Norway; and a member of the Water Science and Technology Board of the U.S. National Academy of Science. The Land and Water Fund of the Rockies reported that in 2002 Denver used 200 gallons per capita per day while Tucson got by on 160 gallons per capita per day.[vi] FOOTNOTE: [vi] Water Use Efficiency Improvements: A Solution To Colorado's Urban Water Supply Problems, Land And Water Fund Of The Rockies, July 2002 In 1968 the Colorado River Basin Act authorized construction of the Central Arizona Project (CAP). CAP is a 336 mile long aqueduct that diverts water from the Colorado River into central and southern Arizona. Soon after authorization it was clear that CAP would fail to meet the unrestrained demands of Arizona. Therefore, in 1979, the United States Secretary Of The Interior told the Arizona Governor that no water would be delivered through CAP until Arizona developed a comprehensive water management plan. In 1980 the Arizona Groundwater Management Act became law.[vii] FOOTNOTE: [vii] Water Conservation Policy in an Arid Metropolitan Region: A Historical and Geographical Assessment of Phoenix, Arizona, Historical Timeline, Global Institute of Sustainability, Arizona State University Between 1985 and 2005 four of the ten</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>Endnotes:</p> <p>¹ The Wetland Fact Sheet Series. Wetland Regulatory Authority, EPA Office of Water, EPA843-F-04-001.</p> <p>² Table 1-1 Of The Moffat Deis Shows That As Of 2002, Total Conservation Savings Since 1980 Were 27,500 Acre Feet Per Year. This Calculated Out To 8.8% Of 2002 Unrestricted Demand Of 312,500 Acre Feet.</p> <p>³ Moffat Deis, Appendix A.</p> <p>⁴ Table 1-1, Summary of Denver Water's Planning Estimates, Moffat Deis.</p> <p>⁵ Testimony of Dr. Peter H. Gleick before the Subcommittee on Water Resources and Environment Of the Committee on Transportation and Infrastructure, United States Congress Hearing: Water: Is It the 'Oil' of the 21st Century?, June 4, 2003. Dr. Gleick is President of the Pacific Institute, Oakland, California; an Academician of the International Water Academy, Oslo, Norway; and a member of the Water Science and Technology Board of the U.S. National Academy of Science.</p> <p>⁶ Water Use Efficiency Improvements: A Solution To Colorado's Urban Water Supply Problems, Land And Water Fund Of The Rockies, July 2002.</p> <p>⁷ Water Conservation Policy in an Arid Metropolitan Region: A Historical and Geographical Assessment of Phoenix, Arizona, Historical Timeline, Global Institute of Sustainability, Arizona State University.</p> <p>⁸ Water Conservation Policy in an Arid Metropolitan Region: A Historical and Geographical Assessment of Phoenix, Arizona, Changes In Total GPCD, 1985 -2005, The Most Populous Cities in Phoenix AMA, Global Institute of Sustainability, Arizona State University.</p> <p>⁹ Denver's Water Conservation Plan, www.denverwater.org.</p> <p>¹⁰ Table 1-1, Summary of Denver Water's Planning Estimates, Moffat Deis.</p> <p>¹¹ Moffat Deis, Chapter 5, Cumulative Effects, p. 5-2.</p> <p>¹² Brook Trout, Trout Unlimited.</p> <p>¹³ Among The Silver Seams of Colorado, The Courier, Georgetown, Colorado, 1886.</p> <p>¹⁴ Fraser Valley Memoirs, 3rd Edition, June 2002, Robert K. Preston.</p> <p>¹⁵ Ike to Lose Fishin' Hole, Denver Post, July 25, 1955.</p> <p>¹⁶ Final Technical Report 2001-2002, Application of DNA-based Genetic Markers to Determine Differences in Susceptible and Non-susceptible Tubifex Populations to Myxobolus cerebralis from the Upper Colorado River and Windy Gap Reservoir.</p> <p>¹⁷ Whirling Disease Research At Yellowstone National Park, Amy Rose, Aquaculture Health International, February 2006.</p> <p>¹⁸ Whirling Disease in the United States, Whirling Disease Initiative of the Montana Water Center at Montana State University.</p> <p>¹⁹ Dredging Sediment From The Fraser River, Gretchen Bergen, DenverPost.com.</p> <p>²⁰ America's Most Endangered Rivers of 2005, American Rivers.</p>	<p><i>most populous cities in the Phoenix Metropolitan Area, Avondale, Goodyear, Peoria and Phoenix reduced their total gallons per capita per day 38%. [viii]</i></p> <p><i>FOOTNOTE: [viii] Water Conservation Policy in an Arid Metropolitan Region: A Historical and Geographical Assessment of Phoenix, Arizona, Changes in Total GPCD, 1985 -2005, The Most Populous Cities in Phoenix AMA, Global institute of sustainability, Arizona State University While Denver achieved an 8.8% reduction other communities delivered savings ranging from 15% to 38%. Long after these same communities achieved significant conservation results Denver finally set a modest goal for itself. In 2006, Denver announced plans to reduce per capita consumption 22%, from 211 gallons to 165 gallons by 2016.[ix] In spite of this new goal Denver will still be far behind what others are already achieving. FOOTNOTE: [ix] Denver's Water Conservation Plan, www.denverwater.org Denver plans to reduce consumption 23% by 2030 and still divert an additional 18,000 acre feet of water from the streams and rivers of the West Slope. In essence, Denver wants to use the next 20 years to try to achieve something near the 'bottom rung' of water conservation results other communities already achieve. (SEE COLUMN 2 OF TABLE 1)[x] FOOTNOTE: [x] Table 1-1, Summary of Denver Water's Planning Estimates, Moffat DEIS If Denver reduced consumption by 27% there would be no need for additional diversions. This result would still only equal what the 'middle of the pack' of other communities already achieve. (SEE COLUMN 3 OF TABLE 1) In the best case scenario Denver could take the next 20 years to achieve water conservation results similar to what the 'top rung' of communities already achieve. If that were to be the case then the current water supply being diverted from the West Slope would generate a greater surplus than Denver enjoyed in 2002.(SEE COLUMNS 4 AND 1 OF TABLE 1) [See TABLE 1 in Source File.] The water conservation results of other communities demonstrate</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>that further damage to West Slope wetlands can be avoided. Denver has yet to achieve water conservation results close to the practicable level of savings already achieved by other communities. The water conservation results envisioned by Denver over the next 20 years will only bring Denver to the 'bottom rung' of water conservation results that other communities currently achieve. If in the next 20 years Denver achieved the level of savings which the 'top rung' of other communities already conserve then Denver would enjoy a significant solution to its needs beyond its year 2050 forecast.</i></p> <p>Response #1738-6: As shown in Table 1-1 in FEIS Section 1.4.1, the 379,000 AF of demand in 2032 already reflects 29,000 AF of water savings from conservation measures between 1980 and 2000, and an additional 27,700 AF of savings from natural replacement (customers replacing items with more water efficient devices). As Denver Water looks to the future and how anticipated demand would be met, Denver Water has a goal of another 29,000 AF of conservation, of which 16,000 AF would be achieved by 2032. The additional 68,000 AF of demand reduction (natural replacement and additional conservation) was considered when calculating the amount of additional supply Denver Water would need to meet future demand. The Corps reviewed Denver Water's estimates of savings from natural replacement as described in FEIS Appendix A (Supplemental Evaluation of Denver Water Demand Projections) and research from the American Water Works Association was incorporated into the calculations of natural replacement savings.</p> <p>Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>than they were prior to the 2002 drought.</p> <p>Comment #1738-2 (ID 2245): DENVER OMITTED PERTINENT INFORMATION FROM THE CUMULATIVE EFFECTS ANALYSIS MAKING THE SET OF PROPOSED WEST SLOPE MITIGATIONS SUBSTANTIALLY LESS THAN WHAT is REQUIRED The U. S. Clean Water Act requires that mitigations must be considered for all significant impacts disclosed in the Moffat DEIS Cumulative Effects Analysis. The current health of the Fraser River, its tributaries and the Colorado River resulting from significant past actions is the basis upon which present and future activities are additive to determine the Moffat DEIS Cumulative Effects. The exclusion of significant past actions leads to a set of proposed West Slope mitigations which fall far short of what is needed. In the 'past or ongoing present actions' section of the Moffat DEIS Cumulative Effects Analysis Denver excluded all West Slope population growth and development claiming that, "no ground distributing activities would occur on the West slope"[xi], therefore all past land disturbing activities on the West Slope can be excluded.</p> <p>Just because Denver does not envision doing any ground distributing activities on the West Slope they cannot exclude the past activities of themselves as well as others. FOOTNOTE: [xi] Moffat DEIS, Chapter 5, Cumulative Effects, p. 5-2. Cumulative Effects are the impact on the environment which results from the incremental impact of the Moffat DEIS when added to other past, present and reasonably foreseeable future impacts regardless of what agency or person undertakes such actions. There has been significant growth over the past 80 years in the Upper Colorado and Fraser river basins on the West Slope. This area is now home to a major ski area, thousands of permanent residents, extensive second 'mountain home' developments, numerous year round destination</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>vacation lodgings and significant municipal support services. This is on top of the many ranching entities and expanded recreational activities now present in this area. In order to accommodate this growth the Berthoud Mountain Pass highway, U.S. 40, expanded from a narrow seasonal two lane dirt road to a major three lane thoroughfare demanding two sets of road crews to keep it open year round for our residents and visitors. The impact of this development and its impact on the West Slope wetlands cannot be ignored. Perhaps an even worse attempt to misrepresent the current health of our West Slope wetlands is the information Denver provides relative to the numerous diversions already existing on the west Slope. Denver mentions the trans-basin diversions since 1936 through the Moffat Tunnel and the Big Thompson project however; there is no discussion of the impact of these diversions on the streams and rivers of the West Slope. Denver merely recites the history of these diversion projects. Denver provides no analysis of the impact on the health of aquatic resources from these diversions over the past 80 years.</i></p> <p><i>A qualitative review of the impact of these past actions on the trout populations within the Fraser River, its tributaries and the Colorado River depicts a water resource in dire need of rescue. Trout serve as indicators of the health of the watersheds they inhabit. Strong wild trout populations demonstrate that a stream or river ecosystem is healthy and that water quality is excellent. A decline in trout populations serves as a warning that the health of an entire aquatic system is at risk.[xii] FOOTNOTE: [xii] Brook Trout, Trout Unlimited In 1886 a newspaper in Georgetown, Colorado gave us an apt description of the Fraser and Colorado rivers before trans-basin diversions commenced: Middle Park (Grand County) ... is watered by the considerable streams of the Grand (Colorado) and Fraser Rivers, to which are tributary innumerable small brooks and creeks. The streams are all filled with</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>mountain trout in endless variety. As a fishing ground, the waters of the Park have no equal, and sportsmen who delight in the rod and line go in great numbers every summer for a never-failing supply of mountain trout.</i>[xiii] FOOTNOTE: [xiii] Among The Silver Seams of Colorado, The Courier, Georgetown, Colorado, 1886 Robert Preston grew up in Middle Park during the 1930's and 40's. In his book he points out that the trout fishing in the Fraser River valley during this time was "exceptionally good." However, his description of the water diversions gives some insight into the damage done on the West Slope: The building of the Moffat Tunnel led to the withdrawals of large quantities of water for shipment to the Eastern Slope. The withdrawals started in 1936 and continuously expanded until all the eastern and southwestern tributaries of the Fraser River had been tapped. This process permanently altered the character of many of the streams in the valley. [xiv] FOOTNOTE: [xiv] Fraser Valley Memoirs, 3rd Edition, June 2002, Robert K. Preston In 1955 the Denver Post described the coming impact from a new trans-basin diversion to Denver.</p> <p><i>The Fraser River and St. Louis Creek were favorite fishing destinations of President Eisenhower. During the 1950's the town of Fraser became known as the "Western White House": Denver's thirst will dry up President Eisenhower's fishing hole soon on the Aksel Nielsen ranch near Fraser. St. Louis creek is one of Ike's favorite trout streams. At an icy 38 degrees the water is an invigorating habitat for scrappy trout. More than 100 heavy construction men are working furiously on a \$1 million diversion program there. Denver plans to divert an average of 19,400 acre feet of water annually from St. Louis creek starting in 1956. That will leave a flow comparable to Turkey Creek, southwest of Denver - a dry bed that is fed for the most part by flash rains in the spring and summer. "Boy, that's going to leave us only a trickle but I guess you can't stand in</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>the way of a thirsty civilization, I'm afraid the trout are doomed," said Aksel Nielsen.[xv] FOOTNOTE: [xv] Ike to Lose Fishin' Hole, Denver Post, July 25, 1955 In the early 1990's we in Grand County began to notice a significant decline in our trout population. This decline can be traced to the existence of the Windy Gap Reservoir and Dam. This impoundment of the confluence of the Fraser and Colorado rivers is part of the Big Thompson Project. This unintended and unforeseen impact is nonetheless a significant impact. Since 1991 there has been a catastrophic decline in the trout population of certain rivers in the intermountain west from whirling disease. However other areas of the west and eastern U. S., while having the same parasite present, don't have catastrophic declines in their trout population. Impoundments, both natural and constructed, are associated with increased whirling disease infection severity.</i></p> <p><i>The abundance of whirling disease parasites in the reservoir account for the catastrophic decline in our trout population. [xvi] FOOTNOTE: [xvi] Final Technical Report 2001-2002, Application of DNA-based Genetic Markers to Determine Differences in Susceptible and Non-susceptible Tubifex Populations to Myxobolus cerebralis from the Upper Colorado River and Windy Gap Reservoir The disease severity results from a combination of environmental factors such as high water temperatures, low flow regimes, and organic matter in the water. These factors contribute to a warm, silty habitat ideal for whirling disease proliferation.[xvii] FOOTNOTE: [xvii] Whirling Disease Research At Yellowstone National Park, Amy Rose, Aquaculture Health International, February 2006 These factors affect the parasite, its hosts, and the risk of disease. The confluence of the Fraser and Colorado Rivers, the Windy Gap Reservoir and Dam, has become a perfect breeding ground for the whirling disease parasite, it is a 'hot spot'. [xviii] FOOTNOTE: [xviii] Whirling Disease in the United States, Whirling</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>Disease Initiative of the Montana Water Center at Montana State University By 2004 the continued destruction of the Fraser River was visibly apparent. The Denver Post again provides us with a riveting description of the situation: Visiting the upper Fraser River last summer, I made a mental note next time to bring beach towels and sand toys. Giant sandbars stretched across the stream doing its best to carve small channels through the thick sediment. Each winter, the Colorado Department of Transportation applies approximately 6,400 tons of sand to the west side of Berthoud Pass, which averages an annual 300 inches of snow. CDOT admirably recovers half of this sand with vacuuming and excavation, but a lot ends up in the Fraser. A sediment-removal project started in 1995 has yet to see the light of day.</i></p> <p><i>The Fraser is an important fishery and recreation river that starts on Berthoud Pass, then flows through Winter Park and Fraser before meeting up with the Colorado River near Granby. It's also an important water source for Denver. Keeping Denver toilets flushing impacts the Fraser's ability to flush away sediment from natural-occurring erosion. Add tons of traction sand tainted with motor oil, and the Fraser doesn't stand a chance.[xix] FOOTNOTE: [xix] Dredging Sediment From The Fraser River, Gretchen Bergen, DenverPost.com And in 2005 with the threat of even more trans-basin diversions the Fraser River became #3 on the list of the top ten endangered rivers in the United States. For years, the Denver Water Board has siphoned out 65 percent of the Fraser River's water and piped it across the mountain to the Front Range. Now the Denver Water Board plans to increase the amount of water it takes from the Fraser River to a whopping 85 percent of the river's flow. The water boards' additional water withdrawals would reduce stream flows in the river to the bare minimum levels- or even lower- recommended by the Colorado Water Conservation Board to sustain wildlife, fish, and</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>a generally healthy stream. [xx] FOOTNOTE: [xx] America's Most Endangered Rivers of 2005, American Rivers The trans-basin diversions from the rivers and streams of Grand County steadily degrade a once great river system teeming with abundant aquatic wildlife. No discussion of this fact exists in the cumulative effects analysis of the Moffat DEIS. By excluding these past actions Denver attempts to create a false impression of the current health of the Fraser River, its tributaries, and the Colorado River. I believe Denver provided a narrow and self serving Cumulative Effects Analysis to minimize the spectrum of proper West Slope mitigations. Denver is clearly attempting to circumvent their responsibilities under section 404 of the Clean Water Act.</i></p> <p>Response #1738-2: Past Actions CEQ interprets NEPA regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the action and its alternatives may have a continuing, additive and significant relationship to those effects. The environmental analysis required under NEPA is forward-looking, in that it focuses on the potential impacts of the proposed action that an agency is considering. Thus, review of past actions is required to the extent that this review informs agency decision-making regarding the proposed action.</p> <p>The Corps has considered that past water-related actions, such as impoundments and diversions, have affected the Colorado River and are accounted for in the analysis of Current Conditions. The DEIS catalogues a list of past projects in Section 5.2. These projects were included in PACSM to sufficiently account for and represent past actions. In addition, effects of past actions on existing flows are accounted</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>for and disclosed in the DEIS Chapter 3 Affected Environment, specifically Section 3.1 Hydrology.</p> <p>The Corps provided additional information on past actions in FEIS Section 4.2. This was accomplished by qualitatively assessing the environment approximately 200 feet upstream and downstream of representative Denver Water diversions. The upstream conditions were meant to coincide with pre-diversion conditions. A combination of streams with and without bypass flows were evaluated (e.g., St. Louis Creek, Jim Creek, etc.) using historic photo documentation and aerial photography.</p> <p>Whirling Disease Whirling disease is a State-wide epidemic and is managed by CPW. Whirling disease is discussed in DEIS Section 3.9.0. All watersheds in the Project area have tested positive for whirling disease, although some streams within these watersheds may be negative. Moffat Project diversions occur in high mountain systems (e.g., upper Clear Creek, Vasquez Creek) that are generally free from whirling disease, so it is unlikely that the proposed Project would increase the spread of the disease.</p> <p>Flushing Flows and Traction Sand Several comments were received on the DEIS regarding the potential impacts reduced flows in the Fraser River would have on the build-up of traction sand used by the CDOT for winter driving. Commenters stated that up to 9,000 tons of sand are applied to US 40 each winter, with 3,000 tons reaching the Fraser River. Other comments included adding a sampling site on Vasquez Creek below the Gumlick Tunnel inflow to evaluate flow increases (i.e., a short section along this stream reach where flows are increasing rather than decreasing.) Thus, sediment sampling, channel surveying and hydraulic and sediment transport modeling were performed at the</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>following sites:</p> <ul style="list-style-type: none"> • Two additional upstream sites on the Fraser River. • Two additional sites on tributaries to the Fraser River near diversion points, one with a bypass flow and one without. • One additional site on Vasquez Creek between the inflow from the Vasquez Tunnel and Denver Water's diversion point. <p>Results of this analysis are described in FEIS Section 5.3.1.2.</p> <p>American Rivers Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>As discussed in FEIS Sections 4.6.11 and 5.11, the fisheries in the Fraser and Colorado rivers are expected to continue to survive if the Project is implemented. The Gold Medal reaches on the Colorado River are expected to continue to merit Gold Medal status. Data presented in FEIS Section 3.11 indicate that there has not been a decline in these fisheries in the last few decades. The statement that trout struggle to survive at current flows is not supported.</p> <p>Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>404 Permit.</p> <p>Comment #1738-5 (ID 2244): <i>I enjoy living in Colorado and all that both sides of the Continental Divide have to offer. If Denver aggressively adopts water conservation, as demonstrated by other communities, it can grow and prosper without causing further damage to the wetlands on the West Slope. Adequate mitigation can be developed to restore the minimum stream flows necessary to sustain aquatic life and recreation on the rivers and streams here on the West Slope. All Colorado citizens and visitors to this natural wonderland would then be able to once again see and enjoy the natural, fertile beauty that is Colorado.</i></p> <p>Response #1738-5: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1761 Sally Philbrook</p>	<p>From: richard a mason [mailto:██████████] Sent: Sunday, March 28, 2010 5:51 AM To: MOFFAT.EIS@usace.army.mil Subject: denver water uses and rights</p> <p>why should denver get more water from the western divide. i believe that california, arizona and nevada will eventually get legal rights and then where will denver be. if there isn't greed with money, than with water that makes money! stop them now! practice conservation get rid of golf courses, water thriving plants and grass that does not belong in a desert such as denver. i won't even go where people don't need showers two and three times a day. make them pay more for their water uses!</p> <p>sally philbrook</p>	<p>Comment #1761-0 (ID 4436): <i>Why should Denver get more water from the western divide. I believe that California, Arizona and Nevada will eventually get legal rights and then where will Denver be. if there isn't greed with money, than with water that makes money! stop them now! practice conservation get rid of golf courses, water thriving plants and grass that does not belong in a desert such as Denver. i won't even go where people don't need showers two and three times a day. make them pay more for their water uses!</i></p> <p>Response #1761-0: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1762 Gordon Scheer</p>	<p>From: [REDACTED] [mailto:[REDACTED]] Sent: Thursday, March 25, 2010 11:47 PM To: MOFFAT.EIS@usace.army.mil Subject: Moffat Firing Project</p> <p>Scott Franklin, Moffat EIS Project Manager</p> <p>-Scheer Attachment.doc</p>	<p>Comment #1762-1 (ID 4438): <i>By now you have received numerous letters of concern from governmental entities, citizen's groups, and individuals from both sides of the Continental Divide expressing concern over the Moffat Firing Project. I will zero in on one aspect of that project that is of particular concern to me. I am concerned because, to put it very directly, Grand Lake is already being degraded as one of the prime beauty spots of Colorado by using it as a ditch for transporting water from the west slope to the east. Some forty years ago when our family first moved to Grand Lake objects on the lake bottom could clearly be seen at the eight to ten foot depth. Today during pumping the secchi disk disappears at four feet, the lake turns a bile green color, and it gives off a stench. Motor boats leave a trail of bubbles in this thick green water that last for many minutes and shoreline and underwater rocks are covered with slime. In addition, the west end of the lake is being silted in from the channel flow. The firing projects mean that a much larger amount of water will be pumped through the Big Thompson system which will greatly worsen conditions described above. There are solutions to the problem that call for pumping to by-pass Shadow Mountain Reservoir and Grand Lake. These solutions are affordable, worth the effort and cost, and absolutely necessary to save Grand Lake, the jewel of the Rockies.</i></p> <p>Response #1762-1: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>Attachments:</p> <p style="text-align: center;">GORDON SCHEER </p> <p>March 25, 2010</p> <p>Scott Franklin, Moffat EIS Project Manager Corps Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> <p>Dear Mr. Franklin:</p> <p>By now you have received numerous letters of concern from governmental entities, citizen's groups, and individuals from both sides of the Continental Divide expressing concern over the Moffat FIRMing Project. I will zero in on one aspect of that project that is of particular concern to me. I am concerned because, to put it very directly, Grand Lake is already being degraded as one of the prime beauty spots of Colorado by using it as a ditch for transporting water from the west slope to the east.</p> <p>Some forty years ago when our family first moved to Grand Lake objects on the lake bottom could clearly be seen at the eight to ten foot depth. Today during pumping the secchi disk disappears at four feet, the lake turns a bile green color, and it gives off a stench. Motor boats leave a trail of bubbles in this thick green water that last for many minutes and shoreline and underwater rocks are covered with slime. In addition, the west end of the lake is being silted in from the channel flow.</p> <p>The firming projects mean that a much larger amount of water will be pumped through the Big Thompson system which will greatly worsen conditions described above.</p> <p>There are solutions to the problem that call for pumping to by-pass Shadow Mountain Reservoir and Grand Lake. These solutions are affordable, worth the effort and cost, and absolutely necessary to save Grand Lake, the jewel of the Rockies.</p> <p>Gordon Scheer</p>	


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1764 Douglas A. Bellatty</p>	<div style="text-align: center;">March 15, 2010</div> <div style="text-align: center;"> <p>Scott Franklin, Moffat FIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, CO 80128</p> </div> <div style="text-align: center;">  </div> <p>Dear Mr. Franklin:</p> <p>This letter pertains to my opposition of the Moffat FIRMing Project proposed by Denver Water.</p> <p>I am opposed to the removal of the water (currently 60%) that would naturally flow down the Fraser. I am also opposed to the proposed increase (approx. 15%) by the Denver Water Board. Many Grand County residents feel as I do, that the Fraser and parts of the Colorado river are already in a state of decline. Even under current diversion levels data shows higher water temperatures, less adult fish habitat, increases in sedimentation and higher concentrations of pharmaceutical and fertilizer chemicals entering the rivers. In addition, if approved, almost 75% of the naturally flowing water in the Fraser will be diverted out of the upper Colorado basin to the east slope. The remaining water in the Fraser below the Denver Water diversions will undoubtedly be much more concentrated with pharmaceutical pollutants that technology currently can not treat. We only need to look to Boulder Creek to see the effects that high concentrations of excreted undigested pharmaceuticals have on fish and other aquatic life. Such low flows year round will cause real public health and safety concerns and they will need to be addressed. I have two young girls, and they drink and rely on water from the Fraser River everyday for their health and well being.</p> <p>It is possible that as technology evolves there may be options of better treatment. These advances will bring increased costs associated with that treatment for both water and wastewater to meet ever more stringent public health requirements. The saying has always been that the solution to pollution is dilution, but without the water for dilution, needed treatment can become very expensive. Who will be responsible for these increased costs? Will it be the tax payers of Grand County? Will it be the health of county residents because improved water and wastewater treatment is no longer affordable? One would think that the resulting diminished quality of life, environment and property would be payment enough.</p> <p>I believe that the DEIS of the Moffat FIRMing Project does not meet the informed threshold required by NLEPA, The National Environmental Policy Act, 42 U.S.C. 4321-4347. NEPA requires informed agency decision making and informed public involvement. As a board member of both the East Grand Water Quality and Grand County Water Information Network Boards, I cannot see how this proposal's DEIS meets the NEPA threshold of compliance. I do not feel that the DEIS associated with the Moffat FIRMing Project has satisfactorily addressed the</p>	<p>Comment #1764-1 (ID 4541): <i>This letter pertains to my opposition of the Moffat FIRMing Project proposed by Denver Water.</i></p> <p>Response #1764-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1764-0 (ID 4540): <i>I am opposed to the removal of the water (currently 60%) that would naturally flow down the Fraser. I am also opposed to the proposed increase (approx. 15%) by the Denver Water Board. Many Grand County residents feel as I do, that the Fraser and parts of the Colorado river are already in a state of decline. Even under current diversion levels data shows higher water temperatures, less adult fish habitat, increases in sedimentation and higher concentrations of pharmaceutical and fertilizer chemicals entering the rivers. In addition, if approved, almost 75% of the naturally flowing water in the Fraser will be diverted out of the upper Colorado basin to the east slope. The remaining water in the Fraser below the Denver Water diversions will undoubtedly be much more concentrated with pharmaceutical pollutants that technology currently can not treat. We only need to look to Boulder Creek to see the effects that high concentrations of excreted undigested pharmaceuticals have on fish and other aquatic life. Such low flows year round will cause real public health and safety concerns and they will need to be addressed. I have two young girls, and they drink and rely on water from the Fraser River everyday for their health and well being. It is possible that as technology evolves there may be options of better treatment. These advances will bring increased costs associated with that treatment for both water and wastewater to meet ever more stringent public health requirements. The saying has always been that the solution to</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>effects of the proposed action on the environmental, ecological, aesthetic, historic, cultural, economic, social, or health affects whether direct, indirect, or cumulative.</p> <p>Furthermore the DEIS does not support the actual condition of the Fraser River. The Fraser River was already placed on "American Rivers" most endangered rivers list in 1995 due to the excessive amount of water that Denver Water diverts from the Fraser River basin annually. The new Moffat Firming project will divert even more water away. The fact that Denver Water is trying to divert more water during high flows still affects the overall health of the river by preventing environmental cleansing that naturally occurs during high flows.</p> <p>In addition, the proposal continues to drain more water from the Fraser River which affects not only its water quality but also the recreational aspect, which is a major industry for the Fraser Valley. Withdrawing water from the Fraser will affect fishing and rafting directly on the Fraser as well as on the Colorado River.</p> <p>Not addressed at all in the DEIS, but no less important, is the fact that once the remaining river water, now overly concentrated with wastewater effluent (effluent dominated), pharmaceuticals, pesticides, and other run off chemicals due to decreased flows, makes its way to the Windy Gap Northern Water Project, it is then pumped to one of the county's most important recreational, scenic and once pristine areas, Lake Granby, Shadow Mountain Lake and Grand Lake. Here the nutrient laden water worsens water quality by clouding the once clear waters and providing optimal conditions for various undesirable algae and bacteria.</p> <p>Finally I would like to ask why alternative means of water conservation in the Front Range have not been considered and implemented instead of just taking more water. As Denver and its outlying suburbs continue to grow in population, wouldn't it be better to place water usage limitations on households? Particularly, wouldn't it be better to encourage the use of native vegetation that requires less water? Having enough water for grass lawns certainly shouldn't take priority over a whole environmental ecosystem, a town's healthy water supply and one of the major economic resources of an entire Colorado county.</p> <p>Enclosed please find two attachments. The first is a graph of the riparian environment (test wells) that exists below Denver's diversion gate and above the actual Denver water bypass flow gauge (located @ HWY 40 Walk Bridge). The graph clearly demonstrates that as the diversion is closed (diverting more) it has a direct and immediate effect on the water levels of the stream and the ground adjacent to the stream. An extended diversion (lowering of water table) would in all likelihood permanently alter or destroy not only the aquatic life but also the fragile riparian conditions that exist in these locations.</p> <p>The second attachment is an article which holds a quote from Dave Little, Denver Water's Director of Planning. In it he explains (highlighted on article) that data interpretation is subjective. It is for that very reason that any decision that favors increased diversions must require an "adaptive management approach," one that has the ability to stipulate conditions and</p>	<p><i>pollution is dilution, but without the water for dilution, needed treatment can become very expensive. Who will be responsible for these increased costs? Will it be the tax payers of Grand County? Will it be the health of county residents because improved water and wastewater treatment is no longer affordable? One would think that the resulting diminished quality of life, environment and property would be payment enough.</i></p> <p>Response #1764-0: The opposition to the Moffat Project is noted. A more detailed evaluation of temperature analysis on the Fraser River and the Colorado River (between the Fraser River and the Blue River) was performed for the FEIS (see Sections 4.6.2 and 5.2).</p> <p>Every water supply has the risk of contamination. This is a known source that would continue to be used with or without the Project.</p> <p>Comment #1764-3 (ID 4539): <i>I believe that the DEIS of the Moffat Firming Project does not meet the informed threshold required by NEPA, The National Environmental Policy Act, 42 U.S.C. 4321-4347. NEPA requires informed agency decision making and informed public involvement. As a board member of both the East Grand Water Quality and Grand County Water Information Network Boards, I cannot see how this proposal's DEIS meets the NEPA threshold of compliance. I do not feel that the DEIS associated with the Moffat Firming Project has satisfactorily addressed the effects of the proposed action on the environmental, ecological, aesthetic, historic, cultural, economic, social, or health affects whether direct, indirect, or cumulative.</i></p> <p>Response #1764-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>make changes as necessary to maintain what is left of a resource and enforce mitigation . Past decisions and agreements made by both state and federal officials were supposed to be protecting both the people and the environment when, instead, they have put the Fraser and Colorado in real peril. I'd appreciate it if you would think of my two girls when you make your decision.</p> <p>Thank you for your time.</p> <p>Sincerely,</p>  <p>Douglas A. Bellamy</p>	<p>Comment #1764-4 (ID 4538): <i>Furthermore the DEIS does not support the actual condition of the Fraser River. The Fraser River was already placed on "American Rivers" most endangered rivers list in 1995 due to the excessive amount of water that Denver Water diverts from the Fraser River basin annually. The new Moffat Firming project will divert even more water away. The fact that Denver Water is trying to divert more water during high flows still affects the overall health of the river by preventing environmental cleansing that naturally occurs during high flows.</i></p> <p>Response #1764-4: Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>Attachments:</p> <div>  <p>PHOTO BY SPOBODA FOR DENVER POST Gabe Waddington of Granby plays in one of SolMist's terrain park.</p> <h3>County officials: Stream plan about 'sharing the risk'</h3> <p>By DENVER POST The focus is on the fish. Brown and rainbow trout their life stages from juvenile to adult, spawning and river survival — were featured into Grand County's Stream Management Plan, a two-phased document in its final phase that outlines preferred flow regimes for streams and rivers in Grand County.</p> <p>"My definition of a healthy stream is good reproduction and spawning beds," said Tom Wesche, fishery biologist and hydrologist for Habitat, of Laramie, Wyo., a Grand County-hired consultant who presented findings of the stream plan to citizens on Tuesday.</p> <p>For the last three years, Wesche, along with Senior Project Manager Perry Bailey of Tetra Tech in Breckenridge and other consultants have been analyzing, studying, surveying and recording river data on the Fraser and Colorado rivers on behalf of Grand County.</p> <p>County officials are hoping the "science" will serve to protect river habitats if East Slope water users are able to divert more.</p> <p>Commissioners, the county manager and their water experts attended a Denver Water Board meeting on Wednesday to officially present the Stream Management Plan to the utility's board members.</p> <p>Their team of water consultants has been checking the methodology behind the Grand County-initiated plan since the start, but some board members have only a vague knowledge about</p> <p>See Water, page 2</p> </div>	<p>Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June.</p> <p>Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System.</p> <p>The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	 <p>WATER: 'This is not about fishing, it's about stream health'</p> <p>Grand County's direction, according to Grand County Commissioner James Newberry.</p> <p>"I thought it went well," said Newberry on Thursday. "The Stream Management Plan was well-received."</p> <p>The "break-through" point, Newberry noted, was when the county clarified to at least one board member that the aim is not to have fish "stocked" in the rivers upon further diversions, but to improve the overall fishery habitat to revive the area's rivers.</p> <p>"This is not about fishing, it's about stream health," Newberry said.</p> <p>From the use of widely-accepted practices studying 80 miles of river system including seven tributaries in Grand County, the draft report of the Stream Management Plan paints a sobering picture of the area's rivers.</p> <p>It shows that adult trout habitat is in short supply. Late-summer flows on the rivers are too low, causing late-summer water temperatures to frequently exceed state standards. Rapid flow changes near dams are problematic. And, the rivers suffer from too much sediment (most severe on the upper Fraser). Flushing flows — high-magnitude flows that flush sediment, being needed oxygen to spawning beds and carry away waste — are too low and infrequent on some reaches, and control structures in the system create barriers for fish to pass.</p> <p>"There is a high pH on the Fraser upstream of Ranch Creek, we don't know why but we're monitoring it," Wesche said of some key findings in the study, adding that a stretch of the Fraser River was flagged for pollutants from leaked discharge at the Moffat Tunnel's west portal.</p> <p>Target flows are specifically identified in the draft stream plan to mark what is needed to improve river health.</p> <p>There is also a working list of restoration projects, such as channel bar improvements, improved spawning habitat, culvert enlargements and implementation of sediment ponds on the upper Fraser.</p> <p>The "million-dollar question," however, centers on phase three of the plan, according to county officials who at Wednesday's meeting with Denver aimed to get a nod of agreement that the city water providers were willing to work with Grand County in recognition that the plan is a valid testament.</p> <p>Denver Water is "comfortable working within that science," as long as the plan is used as a "guidance" document and not used in "some sort of regulatory fashion," said Denver Water's Director of Planning Dave Little on Thursday.</p> <p>"Science is subjective," he said. "Some think that putting the word 'science' on it means it's absolute, but there is a lot of personal judgment and personal opinion involved in interpreting data."</p> <p>Denver Water has not objected to the county's approach in using the stream management plan as a basis for negotiating ways to manage impacts to the river system.</p> <p>"We've agreed not to argue the science but to concentrate on providing solutions for the impacts," Little said, adding that the Denver Water Board is behind using the plan on "how to best apply limited resources to get the best value from a stream-health point."</p> <p>A big part of phase three is that the plan becomes a living document," Commissioner Newberry said.</p> <p>While phase one of the plan included inventory and review of stream data and phase two presents scientifically-based recommendations of stream flow, phase three will take the involvement of Denver Water and the Northern Water Conservancy District, the Division of Wildlife and others to ensure that coordination of diversions, reservoir releases and restoration of river reaches actually happen.</p> <p>Grand County officials call it "sharing the risk."</p> <p>For part of phase three of the plan, they are also sharing the cost. Denver Water and Northern each put in \$100,000 to help pay for the study.</p> <p>As part of Denver and county negotiations in regard to the Moffat Filling project, a list of enhancements to river health has been offered by Denver Water, and how those items fit into the findings of the stream management plan are still being talked about among stakeholders.</p> <p>As much as 95 percent of the stream benefits originally offered by Denver Water at the start of the Moffat Filling Project are still on the table, according to county officials. Little believes nothing has been taken off the table.</p> <p>But even with them, the reality remains that rivers and their tributaries will never return to their pre-diversion state since already there are hundreds of diversions in the system.</p> <p>"We're just trying to make the best out of the situation we have now," Newberry said. "Grand County stepped to the plate, not just complained about the issues, but brought a scenario on how to make it better."</p> <p>Asked if the plan might be a template for future water negotiations with other entities downriver, Little responded that the cooperative process up to this point has been precedent-setting.</p> <p>"It's a rare opportunity," Little said. "People who could be enemies are pulling together for the good of the environment. That's a great opportunity, and I'm glad to be a part of it."</p> <p>There's Still Time</p> <p>Denver Water has granted a 16-month extension for comments about a pending project that impacts the Fraser and Colorado rivers. An extension on the Moffat Operations System Project Draft Environmental Impact Statement and Section 404 permit application must be submitted in writing to the Corps of Engineers by email, mail or fax by March 17 to:</p> <p>Mail: Scott Franklin Moffat ES Project Mgr., Corps Denver Regulatory Office, 6807 S. Woodward Blvd., Littleton, CO 80120. Fax: 303-978-0802 Email: moffat.es@corps.army.mil Website: www.usace.army.mil/moffat/es-2005-info.html</p>	<p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1764-5 (ID 4537): <i>In addition, the proposal continues to drain more water from the Fraser River which affects not only its water quality but also the recreational aspect, which is a major industry for the Fraser Valley. Withdrawing water from the Fraser will affect fishing and rafting directly on</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<div> <p style="text-align: center;">Final Baseline Hydrology Report for Compensatory Wetland Mitigation Plan Town of Winter Park Shops Expansion Project USACE SPK-2008-752</p> <p style="text-align: center;">May 22 begin monitoring 35 cfs May 29-Jun 2 river rises 29 to 191 cfs June 7-9 river drops 197 to 52 cfs June 11-13 river rises 48 to 153 cfs June 20 detailed notes show river rises 10 cfs in 6 hours July 7-8 river drops 65 to 14 cfs 3 Aug end monitoring</p> <p style="text-align: center;">River 35 29 191 197 52 153 161 183 173 152 14 9 11 10 CFS</p> <p style="text-align: center;">Groundwater Elevation in Feet Below Ground Surface</p> <p style="text-align: center;">Monitoring Days</p> <p style="text-align: center;">Well 1 Well 2 Well 3 Well 4 Well 6 Well 7 Well 8 Well 9 Well 10 Well 11 Well 12 Well 13 Well 14 Well 15 Well 16</p> <p style="text-align: center;">Dry Dry Dry</p> <p style="text-align: center;">Figure 8: Study Area Hydrology for 2009, All GroundWater Monitoring Wells 22May to 3Aug. Note strong correlation between groundwater elevations in wells, and between wells and river flows.</p> <p style="text-align: center;">Grand Environmental Services * September 10, 2009</p> </div>	<p><i>the Fraser as well as on the Colorado River.</i></p> <p>Response #1764-5: The Corps has reviewed the recreation analysis and has provided additional information and revisions for clarity in FEIS Section 5.15. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1764-6 (ID 4536): <i>Not addressed at all in the DEIS. but no less important, is the fact that once the remaining river water, now overly concentrated with wastewater effluent (effluent dominated), pharmaceuticals, pesticides, and other run off chemicals due to decreased flows, makes its way to the Windy Gap Northern Water Project, it is then pumped to one of the county's most important recreational, scenic and once pristine areas, Lake Granby, Shadow Mountain Lake and Grand Lake. Here the nutrient laden water worsens water quality by clouding the once clear waters and providing optimal conditions for various undesirable algae and bacteria.</i></p> <p>Response #1764-6: Additional water quality analysis was performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1764-0 (ID 4535): <i>Finally I would like to ask why alternative means of water conservation in the Front Range have not been considered and implemented instead of just taking more water. As Denver and its outlying suburbs continue to grow in population, wouldn't it be better to place water usage limitations on households? Particularly, wouldn't it be better to encourage the use of native vegetation that requires less water? Having enough water for grass lawns certainly shouldn't take priority over a whole environmental ecosystem, a</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>town's healthy water supply and one of the major economic resources of an entire Colorado county.</i></p> <p>Response #1764-0: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System.</p> <p>This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Comment #1764-8 (ID 4534): <i>Enclosed please find two attachments. The first is a graph of the riparian environment (test wells) that</i></p>


Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>exists below Denver's diversion gate and above the actual Denver water bypass flow gauge (located @ HWY 40 Walk Bridge). The graph clearly demonstrates that as the diversion is closed (diverting more) it has a direct and immediate effect on the water levels of the stream and the ground adjacent to the stream. An extended diversion (lowering of water table) would in all likelihood permanently alter or destroy not only the aquatic life but also the fragile riparian conditions that exist in these locations.</i></p> <p>Response #1764-8: The plot of groundwater levels versus time during the high runoff period of May-June 2009, which was referred to in the comment, shows that groundwater levels are high when stream flows are high. However this plot does not show that the stream level has a direct and immediate effect on groundwater levels adjacent to the stream.</p> <p>The FEIS includes additional analyses of stream flow changes in all of the potentially affected stream segments and tributaries to clarify the effects of the Moffat Project and other RFFAs. Additional groundwater data collected in the Fall 2010 was provided and described to further clarify the groundwater-surface water relationships downstream of Denver Water diversion points. The monitor well installation and field data collection activities performed in the fall of 2010 provide measurements of groundwater level elevations and adjacent stream water level elevations at several locations in the Fraser River watershed downstream of Denver Water diversion points.</p> <p>In addition, precision surveying of ground surface elevations at existing shallow wells at the Town of Winter Park Shops Expansion Project site (Grand Environmental Services 2008) define groundwater level and stream level elevations there. These data are</p>


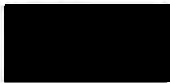
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>expected to further clarify the groundwater-surface water relationships described in the DEIS downstream of Denver Water diversion points. The additional stream flow analyses were used with the new groundwater data to further assess the Project effects on groundwater, stream flow, wetlands, and wells along the Fraser River in FEIS Sections 4.6.4, 4.6.8, 5.4, and 5.8.</p> <p>Comment #1764-9 (ID 4533): <i>The second attachment is an article which holds a quote from Dave Little, Denver Water's Director of Planning. In it he explains (highlighted on article) that data interpretation is subjective. It is for that very reason that any decision that favors increased diversions must require an "adaptive management approach," one that has the ability to stipulate conditions and make changes as necessary to maintain what is left of a resource and enforce mitigation . Past decisions and agreements made by both state and federal officials were supposed to be protecting both the people and the environment when, instead, they have put the Fraser and Colorado in real peril. I'd appreciate it if you would think of my two girls when you make your decision.</i></p> <p>Response #1764-9: The GCSMP has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), channel morphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), PHABSIM data for analysis of aquatic biological resources (Sections 3.11, 4.6.11, and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15). Appropriate conceptual mitigation components were incorporated into FEIS Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1765 J. Capozzelli</p>	<div style="text-align: center;">  </div> <p>March 5, 2010</p> <p>Mr. Scott Franklin Moffat LIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd. Littleton, Co. 80128</p> <p>RE: Moffat Collection System Project Comment</p> <p>I am writing to ask your help because I read about the potential impacts of the proposed Moffat Collection System Project on water quality, fisheries, and the overall health of the Upper Colorado River Basin.</p> <p>The Colorado River and its tributaries, such as the Fraser River, provide valuable habitat and recreational opportunities that are central to Colorado's economy and quality of life.</p> <p>The current DEIS (Draft Environmental Impact Statement), as written, fails to:</p> <ul style="list-style-type: none"> • Adequately address potential impacts to water quality on the Fraser River and throughout the Colorado River Basin. • Include an analysis of the impacts that will result from diminished flushing and channel maintenance flows. If the project is to move forward, periodic peak flows that mimic those flows that normally result from spring runoff must be a condition of the permit. • Fully consider and recognize the cumulative impacts of the Moffat system's existing and proposed diversions and expansions that alter flow regimes throughout the Upper Colorado Basin. (For example, in assessing the impacts of the proposed project, the DEIS does not consider the impacts existing projects are already having on the streams and their resources. Some of the streams affected, including the Fraser River, are already showing signs of deterioration. Will the additional diversions push the stream to a point where it can no longer sustain its fisheries?) • Use data that provides an accurate baseline from which to measure real impacts rather than a "projected" baseline several years into the future that may not reflect real-world conditions. • Provide adequate mitigation requirements as conditions of any approved permit. • Ensure that Denver Water and its customers exhaust all measures to improve water conservation and efficient use of existing resources, including better integration of water deliveries throughout the area served by Denver water and an adequate program to reduce residential outdoor use. (Currently, over 50 percent of the Fraser River and 60 percent of the Colorado River's flows are diverted to meet the needs of Front Range municipal water users, the vast majority of which is used to irrigate water-intensive landscaping and lawns outdoors.) <p>It is the responsibility of the US Army Corps of Engineers to ensure that effective mitigation is in place to protect the habitat, wildlife and local communities that rely on the Upper Colorado Basin streams. Increasing the amount of water diverted from Colorado's already depleted streams and rivers without improving efficiency is at best a temporary fix for a serious long-term problem.</p>	<p>Comment #1765-1 (ID 4449): <i>I am writing to ask your help because I read about the potential impacts of the proposed Moffat Collection System Project on water quality, fisheries, and the overall health of the Upper Colorado River Basin. The Colorado River and its tributaries, such as the Fraser River, provide valuable habitat and recreational opportunities that are central to Colorado's economy and quality of life.</i></p> <p>Response #1765-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1765-2 (ID 4448): <i>The current DEIS (Draft Environmental Impact Statement), as written, fails to: Adequately address potential impacts to water quality on the Fraser River and throughout the Colorado River Basin.</i></p> <p>Response #1765-2: Additional water quality analysis was performed for the Fraser River and the Colorado River. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1765-3 (ID 4447): <i>Include an analysis of the impacts that will result from diminished flushing and channel maintenance flows. If the project is to move forward, periodic peak flows that mimic those flows that normally result from spring runoff must be a condition of the permit.</i></p> <p>Response #1765-3: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While stream flows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
	<p>Page 2</p> <p>The Upper Colorado River Basin has long been a crown jewel among the West's most treasured resources, providing fishing, hiking, rafting and many other recreation and economic opportunities on which many of Colorado's communities depend.</p> <p>Many communities across the Front Range and throughout the West also depend on the Colorado River to meet their daily water needs. I have read that within Colorado's vast network of rivers, the Colorado and Fraser Rivers currently lose on average about 60 percent of their native flows to Front Range municipalities. Ignoring already evident impacts of these severe stream flow reductions, Denver Water seeks to draw an additional 5.5 billion gallons of water from the Fraser.</p> <p>Listed as the third most endangered river in America in 2005, the Fraser River is showing signs of deterioration. The river may be at a tipping point, a point where it can no longer sustain a healthy trout fishery and ecosystem. Further depletions could push it to the brink of collapse.</p> <p>As currently written, the Draft Environmental Impact Statement (DEIS) for the Moffat Project ignores the negative impacts of existing diversions, assumes that further removal of water will have no harmful impacts, and fails to provide adequate mitigation measures to prevent a collapse and ensure sustained flows that support fish, wildlife, and rural communities that depend on the Fraser and Upper Colorado for survival.</p> <p>The Moffat Expansion Project threatens to flatline the Fraser. To ensure sustained flows that support fish, wildlife, and local communities, I urgently ask the Denver Water and the US Army Corps of Engineers, to:</p> <ul style="list-style-type: none"> • Use accurate baseline data to determine current and potential impacts. • Provide adequate mitigation for the Fraser and Colorado systems. • Require Denver Water to maximize efficiency. <p>Conservation is the cheapest, fastest, and smartest water supply strategy. Conservation should be maximized to the greatest extent possible before any other options are pursued.</p> <p>There is enough water to meet a wide range of future needs, from fish, wildlife and recreation, to agriculture and growing cities. Working together on collaborative, smart water solutions can keep America's rivers thriving and healthy.</p> <p>I urgently ask your help to work, in partnership with Denver Water and community stakeholders, to find a solution that will both allow the city to meet its municipal needs and ensure the continued existence of one of this most beloved of rivers. Thank you.</p> <p>Yours truly,</p> <p> J. Capozzelli New York</p> 	<p>still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 190 cfs versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7%. At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Section 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature Conservancy's software, IHA was used to evaluate the change in frequency, duration,</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the ROW agreements with the USFS.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1765-4 (ID 4446): <i>Fully consider and recognize the cumulative impacts of the Moffat system's existing and proposed diversions and expansions that alter flow regimes throughout the Upper Colorado Basin. (For example, in assessing the impacts of the proposed project, the DEIS does not consider the impacts existing projects are already having on the streams and their resources. Some of the streams affected, including the Fraser River, are already showing signs of deterioration. Will the additional diversions push the stream to a point where it can no longer sustain its fisheries?)</i></p> <p>Response #1765-4: The Corps has considered that past water-related actions, such as impoundments and diversions, have affected the Colorado River Basin and are accounted for in the analysis of Current Conditions. The DEIS catalogues a list of past projects in Section 5.2. These projects were included in PACSM to sufficiently account for and represent past actions. In addition, effects of past actions on existing flows are accounted for and disclosed in the DEIS Chapter 3 Affected Environment, specifically Section 3.1 Hydrology.</p> <p>The Corps provided additional information on past actions in FEIS Section 4.2. This was accomplished by qualitatively assessing the environment approximately 200 feet upstream and downstream of representative Denver Water diversions. The upstream conditions were meant to coincide with pre-diversion conditions. A combination of streams with and without bypass flows were evaluated (e.g., St. Louis Creek, Jim Creek, etc.) using historic photo documentation and aerial photography.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Additionally, FEIS Section 3.1.5 was expanded to include a discussion of virgin flows and the percentage of monthly virgin flows in the Fraser and Williams Fork river basins diverted by Denver Water. This would allow the reader to compare the percentage of natural flows with past diversions at each of Denver Water's diversion locations modeled in PACSM under Current Conditions, Full Use of the Existing System, and for each of the Moffat Project alternatives.</p> <p>Comment #1765-5 (ID 4445): <i>Use data that provides an accurate baseline from which to measure real impacts rather than a "projected" baseline several years into the future that may not reflect real-world conditions.</i></p> <p>Response #1765-5: The impact analysis was revised in the FEIS to present total environmental effects based on a comparison of Current Conditions (2006) and Full Use with a Project Alternative (2032). FEIS Chapter 4 displays the total environmental effects of the Moffat Project alternatives in combination with other RFFAs based on a comparison of the following scenarios.</p> <ul style="list-style-type: none"> • Current Conditions (2006) reflects the related current administration of the Colorado and South Platte river basins, demands, infrastructure, and operations. Under the Current Conditions (2006) scenario, Denver Water's existing average annual demand is 285,000 AF/yr. • Full Use with a Project Alternative (2032) reflects conditions in Denver Water's system when the Moffat Project is completed and in full use in 2032. This scenario reflects each action alternative in combination with other RFFAs. Under this scenario, the Moffat Project would be providing 18,000 AF/yr of new firm yield. The FEIS includes an updated 2032 water demand projection for

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Denver Water.</p> <p>Full Use of the Existing System reflects the best available projections of demand and supply consistent with current standards of water resource planning. Full Use of the Existing System includes RFFAs including growth in Denver Water's average annual demand to 345,000 AF/yr, which Denver Water can achieve with their existing system. Denver Water's existing system is capable of meeting an average annual demand of 345,000 AF/yr, therefore, the hydrologic effects associated with additional diversions that would occur as Denver Water's demand grows to that level are not an impact of the proposed Moffat Project. Denver Water is not responsible for mitigating for the effects of other reasonably foreseeable actions since they are not caused by the Moffat Project. FEIS Chapter 5 presents the effects attributable to the Moffat Project based on a comparison of Full Use of the Existing System and Full Use with a Project Alternative (2032).</p> <p>Comment #1765-6 (ID 4444): <i>Provide adequate mitigation requirements as conditions of any approved permit.</i></p> <p>Response #1765-6: Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.</p> <p>Comment #1765-7 (ID 4443): <i>Ensure that Denver Water and its customers exhaust all measures to improve water conservation and efficient use of existing resources, including better integration of water deliveries throughout the area served by Denver water and an adequate program to reduce residential outdoor use. (Currently, over 50 percent of the Fraser River and 60 percent of the Colorado River's flows are diverted to meet the needs</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p><i>of Front Range municipal water users, the vast majority of which is used to irrigate water-intensive landscaping and lawns outdoors.)</i></p> <p>Response #1765-7: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p> <p>Comment #1765-8 (ID 4442): <i>It is the responsibility of the US Army Corps of Engineers to ensure that effective mitigation is in place to protect the habitat, wildlife and local communities that rely on the Upper Colorado Basin streams. Increasing the amount of water diverted from Colorado's already depleted streams and rivers without improving efficiency is at best a temporary fix for a serious long-term problem.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1765-8: Please see the response to Comment ID 4444.</p> <p>Comment #1765-9 (ID 4441): <i>The Upper Colorado River Basin has long been a crown jewel among the West's most treasured resources, providing fishing, hiking, rafting and many other recreation and economic opportunities on which many of Colorado's communities depend. Many communities across the Front Range and throughout the West also depend on the Colorado River to meet their daily water needs. I have read that within Colorado's vast network of rivers, the Colorado and Fraser Rivers currently lose on average about 60 percent of their native flows to Front Range municipalities. Ignoring already evident impacts of these severe stream flow reductions, Denver Water seeks to draw an additional 5.5 billion gallons of water from the Fraser.</i></p> <p>Response #1765-9: DEIS Section 3.1 presents information that demonstrates the hydrologic effects of upstream transbasin diversions and increased water use over time in the upper Fraser River Basin and along the Colorado River mainstem at Windy Gap. DEIS Table 3.1-10 summarizes the effects of historical Moffat Collection System diversions on native flow at the Fraser River at Winter Park gage. On average, Denver Water diverted approximately 50% of the average annual native flow at the Fraser River at Winter Park gage for the 30-year period from 1975 through 2004. The percentage of native flow diverted by Denver Water depends on the location in the basin. Denver Water would divert over 90% of the native flow with the Moffat Project on-line from some small tributaries that do not have bypass flow requirements. Denver Water would divert about 76% of the native flow at the Winter Park gage with the Moffat Project on-line. At the Granby gage located near the mouth of the Fraser</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>River, Denver Water's average annual Moffat Collection System diversions represent approximately 41% of the native flow. Tables showing the percentage of native flow diverted by Denver Water under Current Conditions, Full Use of the Existing System and the proposed Moffat Project flow were added to FEIS Appendix H.</p> <p>The water supply to meet an additional 18,000 AF of new firm yield would come from the Fraser River, Williams Fork River, Blue River, South Platte River and South Boulder Creek. Average annual additional diversions under the Proposed Action compared to Full Use of the Existing System would be as follows:</p> <ul style="list-style-type: none"> • Williams Fork River: 1,900 AF/yr (Gumlick Tunnel) • Fraser River Basin: 8,400 AF/yr (Fraser River diversion through Moffat Tunnel) • Blue River Basin: 4,800 AF/yr (Roberts Tunnel) • South Platte River Basin: 2,400 AF/yr (direct diversions and exchanges to Conduit 20) • South Boulder Creek: 1,200 AF/yr <p style="padding-left: 40px;">Total: 18,700 AF/yr</p> <p>Total additional diversions under the Proposed Action would exceed 18,000 AF/yr due to miscellaneous losses in Denver Water's system including conveyance and evaporation.</p> <p>Comment #1765-10 (ID 4440): <i>Listed as the third most endangered river in America in 2005, the Fraser River is showing signs of deterioration. The river may be at a tipping point, a point where it can no longer sustain a healthy trout fishery and ecosystem. Further depletions could push it to the brink of collapse.</i></p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>Response #1765-10:</p> <p>The DEIS and the FEIS both discuss flow changes and diversions with the Project in the Fraser River and the potential impacts to fish habitat and fish populations. Results presented in the DEIS and FEIS do not indicate that there would be a collapse of the Fraser River as a fishery. The Corps is not aware of a known scientific threshold or "tipping point" at which negative impacts occur to aquatic species nor is the Corps aware of any model or technique available that conducts "threshold" analysis. The magnitude of impact depends on the current state of that resource and factors that influence that resource. For example, aquatic biological resources respond to minimum flows and other conditions that sustain their habitat and are incrementally affected by temperature and water quality changes. The evaluation of effects on aquatic biological resources considered the current state of that resource including species composition, relative abundance, benthic macroinvertebrates, and habitat availability and factors that affect that resource such as minimum flows, temperature, and water quality to assess the magnitude of impact. For example, in fully diverted tributaries that do not contain fish and few macroinvertebrates, it is likely that the resource is past the tipping point. In other stream segments, site-specific information was assessed to determine if the Project would create a tipping point effect. FEIS Sections 3.11, 4.6.11, and 5.11 have been revised to identify existing conditions in streams that are clearly past the tipping point based on professional judgment.</p> <p>Mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7.</p> <p>Information gained from www.americanrivers.org indicates that American Rivers reviews nominations for the "America's Most Endangered Rivers" report from river groups and concerned citizens across the country. Per the website, the report is not a list of the</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>nation's "worst" or most polluted rivers, but rather it highlights rivers facing management decisions. Since it appears that American Rivers' criteria for evaluation of river condition is subjective, the comment is simply noted.</p> <p>Comment #1765-11 (ID 4439): <i>As currently written, the Draft Environmental Impact Statement (DEIS) for the Moffat Project ignores the negative impacts of existing diversions, assumes that further removal of water will have no harmful impacts, and fails to provide adequate mitigation measures to prevent a collapse and ensure sustained flows that support fish, wildlife, and rural communities that depend on the Fraser and Upper Colorado for survival. The Moffat Expansion Project threatens to flatline the Fraser. To ensure sustained flows that support fish, wildlife, and local communities, I urgently ask the Denver Water and the US Army Corps of Engineers to: Use accurate baseline data to determine current and potential impacts. Provide adequate mitigation for the Fraser and Colorado systems. Require Denver Water to maximize efficiency. Conservation is the cheapest, fastest, and smartest water supply strategy. Conservation should be maximized to the greatest extent possible before any other options are pursued. There is enough water to meet a wide range of future needs, from fish, wildlife and recreation, to agriculture and growing cities. Working together on collaborative, smart water solutions can keep America's rivers thriving and healthy. I urgently ask your help to work, in partnership with Denver Water and community stakeholders, to find a solution that will both allow the city to meet its municipal needs and ensure the continued existence of one of this most beloved of rivers. Thank you.</i></p> <p>Response #1765-11: Baseline Please refer to the reorganized format of the FEIS,</p>


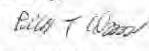
Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>which provides a revised baseline for more detailed discussion of Project-related effects. FEIS Chapter 4 now describes the total environmental effects (the Project in combination with other reasonably foreseeable projects) that are anticipated to occur between Current Conditions (2006) and Full Use with a Project Alternative (2032). FEIS Chapter 5 describes Project-related effects between Full Use of the Existing System and Full Use with a Project Alternative (2032).</p> <p>Mitigation Denver Water's Conceptual Mitigation Plan for the Project is contained in FEIS Appendix M. Potential mitigation options were developed based in part on discussions with CPW, Colorado Division of Natural Resource (Wildlife Commission), Trout Unlimited, Western Resource Advocates, Colorado Environmental Coalition, The Nature Conservancy, Boulder County, City of Boulder, Grand County, Northwest Council of Governments, and the USFS.</p> <p>System Efficiency On average, Denver Water spends \$15 million per year on existing system maintenance and improvements. In addition, Denver Water's Ten-Year Capital Plan projects expenditures for additions, improvements, and replacements to water system facilities.</p> <p>Conservation Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project.</p> <p>It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1767 Patrick Ghidossi</p>	<div style="text-align: center;">  </div> <p>Patrick Ghidossi [Redacted]</p> <p>March 7, 2010</p> <p>Mr. Scott Franklin U.S. Army Corps of Engineers 9307 South Wadsworth Blvd. Littleton, CO 80128-6901</p> <p>Dear Mr. Franklin,</p> <p>I am writing to you concerning the proposed Moffat Collection System Project, which aims to divert more water from the Upper Colorado River Basin to Denver and the Front Range to fulfill growing needs. This river ecosystem is already in peril as 50% of the Fraser River's flow is already used to service the Front Range. Further diverting water would threaten miles of wildlife habitat, thoroughly degrading one of Colorado's greatest natural assets.</p> <p>I believe more beneficial long-term solutions to the water supply problems exist. Conserving water is the easiest and most effective solution to this problem. Tighter watering restrictions on outdoor irrigation, where over half of Denver Water's supply goes, would be an effective step. More effective and widespread public education about water conservation, to reduce residential outdoor use, would help promote sustainable living as well. More efficiently integrating the delivery and distribution of the existing water would also be a positive step.</p> <p>The Moffat Project is a temporary fix for a long-term problem, and a fix that will only create more serious and complicated problems in the future. The fragility of the Upper Colorado River Basin makes this project environmentally unfeasible. When these rivers stop flowing, where will we turn to next? Conservation and sustainability are the only viable answers to creating long-term resource stability. Thank you for your time and consideration.</p> <p>Sincerely,  Patrick Ghidossi [Redacted]</p>	<p>Comment #1767-1 (ID 4460): <i>I am writing to you concerning the proposed Moffat Collection System Project, which aims to divert more water from the Upper Colorado River Basin to Denver and the Front Range to fulfill growing needs. This river ecosystem is already in peril as 50% of the Fraser River's flow is already used to service the Front Range. Further diverting water would threaten miles of wildlife habitat, thoroughly degrading one of Colorado's greatest natural assets.</i></p> <p>Response #1767-1: DEIS Table 3.1-10 summarizes the effects of historical Moffat Collection System diversions on native flow at the Fraser River at Winter Park gage. On average, Denver Water diverted approximately 50% of the average annual native flow at the Fraser River at Winter Park gage for the 30-year period from 1975 through 2004. The percentage of native flow diverted by Denver Water depends on the location in the basin. Denver Water would divert over 90% of the native flow with the Moffat Project on-line from some small tributaries that do not have bypass flow requirements. Denver Water would divert about 76% of the native flow at the Winter Park gage with the Moffat Project on-line. At the Granby gage located near the mouth of the Fraser River, Denver Water's average annual Moffat Collection System diversions represent approximately 41% of the native flow. Tables showing the percentage of native flow diverted by Denver Water under Current Conditions, Full Use of the Existing System and the proposed Moffat Project flow were added to FEIS Appendix H.</p> <p>Flow related changes that have occurred in the Fraser River Basin since 1935 are due in part to Denver Water's existing Moffat Collection System diversions, however, these impacts are attributable to past and present operations of that system, not the proposed Moffat Project. Under the proposed Moffat Project, the</p>




Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>effects on wildlife habitat due to additional diversions attributable to the Moffat Project were evaluated and determined to be minimal.</p> <p>Comment #1767-2 (ID 4459): <i>I believe more beneficial long-term solutions to the water supply problems exist. Conserving water is the easiest and most effective solution to this problem. Tighter watering restrictions on outdoor irrigation, where over half of Denver Water's supply goes, would be an effective step. More effective and widespread public education about water conservation, to reduce residential outdoor use, would help promote sustainable living as well. More efficiently integrating the delivery and distribution of the existing water would also be a positive step.</i></p> <p>Response #1767-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System.</p> <p>This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of 18,000 AF. Denver Water is implementing an aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.</p> <p>Comment #1767-3 (ID 4458): <i>The Moffat Project is a temporary fix for a long-term problem, and a fix that will only create more serious and complicated problems in the future. The fragility of the Upper Colorado River Basin makes this project environmentally unfeasible. When these rivers stop flowing, where will we turn to next? Conservation and sustainability are the only viable answers to creating long-term resource stability. Thank you for your time and consideration.</i></p> <p>Response #1767-3: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
<p>Comment #1770 Craig Miller</p>	<div style="text-align: right;">  CRAIG MILLER </div> <div style="text-align: center;">  </div> <p>Dear Sir,</p> <p>With the Moffat Collection System Project, I have great concerns about the delays the trucks will cause on 72 Hwy. and Gross Dam Rd. The amount of people using and living along these roads is much greater than when Gross Dam was first constructed.</p> <p>From 72 Hwy. to Gross Dam Rd. there will be an U-turn to get on or off 72 Hwy. to Gross Dam Rd. Then there will be a 90° turn, several curves before coming to a very hard curve that leads into a turn that is less than 90°. After that comes curves along with another curve which is less than 90° and a railroad crossing. All of these are on unlevel grades. I've seen trucks get hung up on these curves for a great deal of time causing big time delays to me and my neighbors.</p> <p>The dust has increased by a great amount on Gross Dam Rd. with more people using the road. Water trucks don't work on Gross Dam Rd. I've seen them try it before. With trucks coming and more traffic it is only fair that Gross Dam Rd. be paved at least where the people live. That would be about 1 1/2 miles of paving.</p> <p>I've talk to and heard from people in Owl Creek Canyon area and I agree with them on the many other issues and concerns they have.</p> <p>Sincerely, Craig Miller</p> <div style="text-align: right;">  </div>	<p>Comment #1770-1 (ID 4463): With the Moffat Collection System Project I have great concerns about the delays the trucks will cause on 72 Hwy. and Gross Dam Rd. The amount of people using and living along these roads is much greater than when Gross Dam was first constructed. From 72 Hwy. to Gross Dam Rd. there will be a U-turn to get on or off 72 Hwy. to Gross Dam Rd. Then there will be a 90° turn, several curves before coming to a very hard curve that leads into a turn that is less than 90°. After that, comes curves along with another curve which is less than 90° and a railroad crossing. All of these are on unlevel grades. I've seen trucks get hung up on these curves for a great deal of time causing big time delays to me and my neighbors.</p> <p>Response #1770-1: Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1770-2 (ID 4462): The dust has increased by a great amount on Gross Dam Rd. with more people using the road. Water trucks don't work on Gross Dam Rd. I've see them try it before. With trucks coming and more traffic it is only fair that Gross Dam Rd. be paved at least where the people live. That would be about 1 1/2 miles of paving.</p> <p>Response #1770-2: Most of the roadways serving Gross Reservoir (e.g., SHs 72 and 93) are in good condition and are designed to handle large, heavy construction vehicles. However, Denver Water would improve other roads in the Project area to accommodate construction</p>

Comment-Response Report (Public Part E)

Comment Information	Comment	Comments and Response
		<p>activities, if needed. Denver Water met with CDOT to discuss the potential increase in truck traffic on SH 72 during construction as well as options for managing and mitigating Project-related traffic. Denver Water is evaluating alternatives for reducing construction traffic delays, including improving turnouts on SH 72 for slow-moving traffic. Denver Water will work with Jefferson and Boulder counties to address local traffic concerns.</p> <p>Comment #1770-3 (ID 4461): <i>I've talk to and heard from people in Coal Creek Canyon area and I agree with them on the many other issues and concerns they have.</i></p> <p>Response #1770-3: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Public Part E)

References

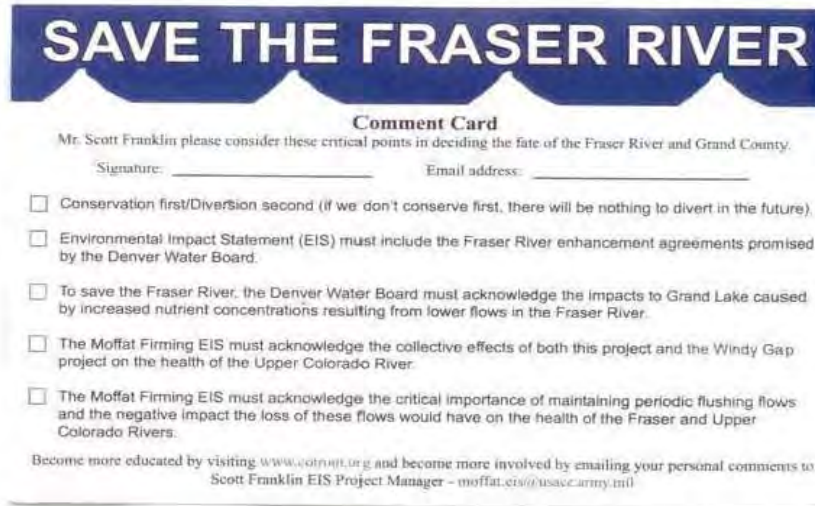
- Apodaca, L.E. and J.B. Bails. 1999. Fraser River Watershed, Colorado – Assessment of Available Water-Quantity and Water-Quality Data Through Water Year 1997, USGS WRIR 98-4255. American Water Works Association
- Center of the American West. 1997. *Atlas of the New West*. A Project of the Center of the American West, University of Colorado. W. Riebsame, General Editor.
- Grand Environmental Services. 2009. Final Baseline Hydrology Report for Compensatory Wetland Mitigation Plan, Town of Winter Park Shops Expansion Project. USACE Wetland Permit SPK-2008-752. September 10.
- Kirkham, R.M. and W.P. Rogers. 1981. Earthquake Potential In Colorado, Colorado Geological Survey Bulletin 43, Department of Natural Resources, Denver, Colorado.
- Kumar, S., S.A. Spaulding, T.J. Stohlgren, K.A. Hermann, T.S. Schmidt, and L.L. Bahl. 2009. Potential Habitat Distribution for the Freshwater Diatom *Didymosphenia geminata* in the Continental U.S. *Frontiers in Ecology and the Environment* 7, doi: 10.1890/080054. The Ecological Society of America. www.frontiersinecology.org.
- McCarthy, J.M. 2008. Factors Influencing Ecological Recovery Downstream of Diversion Dams in Southern Rocky Mountain Streams. Masters Thesis, Colorado State University, Fort Collins, Colorado.
- Nichols, P., M. Murphy, and D. Kenney. 2001. [Summary Report: Water and Growth in Colorado, A Review of Legal and Policy Issues](#), and [Most](#) Frequently Asked Questions About Water in Growth in Colorado. Natural Resources Law Center, University of Colorado School of Law.
- Riebsame, W.E. 1997. Western Land Use Trends and Policy: Implications for Water Resources. A Report to the Western Water Policy Review Advisory Commission.
- Western Regional Climate Center (WRCC). 2010. Climate Data. "Colorado Climate Summaries." Accessed at: <http://www.wrcc.dri.edu/summary/climsmco.html>. October 4.
- Western Water Policy Review Advisory Commission. 1998. *Water in the West: The Challenge for the Next Century*. Prepared by A.D. Tarlock.
- United States Army Corps of Engineers (Corps). 1998. Final Environmental Impact Statement: Metropolitan Denver Water Supply EIS. Volume 1, p. 3-3. Omaha District.
- United States Army Corps of Engineers (Corps). 2007. Alternatives Screening Report, Moffat Collection System Project. U.S. Army Corps of Engineers Omaha District. August.

Comment-Response Report (Public Part E)

This page intentionally left blank.

Save the Fraser River Form Letters

Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
SAVE THE FRASER RIVER FORM LETTER — STANDARD		
<p><i>[The Save the Fraser Standard Form Letter shown here on page 1 was submitted by all the commenters listed below.]</i></p> <p>Comment #625 Catherine Kleier</p> <p>Comment #626 KD Wehmeyer</p> <p>Comment #627 Keith Bergen</p> <p>Comment #628 P. Brower</p> <p>Comment #629 W. Turnbull</p> <p>Comment #630 Marilyn Turnbull</p> <p>Comment #631 Bennett Finnell</p> <p>Comment #632 Lynette Becksmith</p> <p>Comment #633 illegible illegible</p> <p>Comment #634 T. H.</p> <p>Comment #635 Nick Meyer</p>	<div style="text-align: right;">PLACE STAMP HERE</div> <p style="text-align: center;">Scott Franklin Moffat EIS Project Manager Corps Denver Regulatory Office 9307 S. Wadsworth Blvd Littleton, CO 80128</p>  <p>SAVE THE FRASER RIVER</p> <p style="text-align: center;">Comment Card</p> <p>Mr. Scott Franklin please consider these critical points in deciding the fate of the Fraser River and Grand County.</p> <p>Signature: _____ Email address: _____</p> <p><input type="checkbox"/> Conservation first/Diversion second (if we don't conserve first, there will be nothing to divert in the future).</p> <p><input type="checkbox"/> Environmental Impact Statement (EIS) must include the Fraser River enhancement agreements promised by the Denver Water Board.</p> <p><input type="checkbox"/> To save the Fraser River, the Denver Water Board must acknowledge the impacts to Grand Lake caused by increased nutrient concentrations resulting from lower flows in the Fraser River.</p> <p><input type="checkbox"/> The Moffat Firing EIS must acknowledge the collective effects of both this project and the Windy Gap project on the health of the Upper Colorado River.</p> <p><input type="checkbox"/> The Moffat Firing EIS must acknowledge the critical importance of maintaining periodic flushing flows and the negative impact the loss of these flows would have on the health of the Fraser and Upper Colorado Rivers.</p> <p>Become more educated by visiting www.cornp.org and become more involved by emailing your personal comments to Scott Franklin EIS Project Manager - moffat.eis@usace.army.mil</p>	<p>Form Letter Comment #624-1 (ID 1090): <i>Conservation first/Diversion second (if we don't conserve first, there will be nothing to divert in the future).</i></p> <p>Response #624-1: A summary of conservation measures implemented by the Board of Water Commissioners (Denver Water) is provided in the Draft Environmental Impact Statement (DEIS) and Final Environmental Impact Statement (FEIS) Table 1-2.</p> <p>Form Letter Comment #624-2 (ID 1091): <i>Environmental Impact Statement (EIS) must include the Fraser River enhancement agreements promised by the Denver Water Board.</i></p> <p>Response #624-2: The U.S. Army Corps of Engineers (Corps) will include specific mitigation measures that are enforceable through a Section 404 Permit, if issued. Colorado Department of Public Health and Environment (CDPHE) will also include specific water quality mitigation measures that are enforceable through a Section 401 Certification. The U.S. Fish and Wildlife Service will include specific requirements to protect threatened and endangered species that are enforceable through a Biological Opinion. In addition, Denver Water has entered into three agreements that would enhance the existing environment and provide additional protections: Colorado River Cooperative Agreement, Learning by Doing Cooperative Effort, and Fish and Wildlife Enhancement Plan, copies of which are provided in FEIS Appendix M. Each of these plans will be implemented through permanent</p>

Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #636 Glenda Spooner</p> <p>Comment #637 Jessica Wormington</p> <p>Comment #638 Sharon King</p> <p>Comment #639 Patty Sue Coulson</p> <p>Comment #640 Dean and Terrah McCracken</p> <p>Comment #641 Bryon Hetzler</p> <p>Comment #642 Marilyn Teverbaugh</p> <p>Comment #643 Bryan Huseboe</p> <p>Comment #644 illegible illegible</p> <p>Comment #645 M. Liza Cervenka</p> <p>Comment #646 Case McCreu</p> <p>Comment #647 Martha Hut</p> <p>Comment #648 James Ross</p>		<p>agreements between the parties. The Corps will consider these agreements, along with all “reasonably foreseeable future actions” in its decision process regarding the proposed Moffat Collection System Project (Moffat Project or Project). These agreements are not intended to mitigate the impacts of the proposed Project; instead, the purpose is to improve existing conditions of aquatic environments in the Colorado River Basin should Gross Reservoir be enlarged.</p> <p>Form Letter Comment #624-3 (ID 1092): <i>To save the Fraser River, the Denver Water Board must acknowledge the impacts to Grand Lake caused by increased nutrient concentrations resulting from lower flows in the Fraser River.</i></p> <p>Response #624-3: Additional water quality analysis has been performed on the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Form Letter Comment #624-4 (ID 1093): <i>The Moffat Firming EIS must acknowledge the collective effects of both this project and the Windy Gap project on the health of the Upper Colorado River.</i></p> <p>Response #624-4: The DEIS includes the Windy Gap Firming Project (WGFP) as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps’ analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can</p>

Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #649 A. Myerly</p> <p>Comment #650 Erika Alpern</p> <p>Comment #651 Steve Radcliffe</p> <p>Comment #652 Robert J. Wegerer</p> <p>Comment #653 CJH Moore</p> <p>Comment #654 Donald Alpern</p> <p>Comment #655 Sylvia Baldwin</p> <p>Comment #656 Mikki Suffin</p> <p>Comment #657 Kris Heiner</p> <p>Comment #658 Dee and Rick Millinex</p> <p>Comment #659 illegible illegible</p> <p>Comment #660 Brian Allison</p> <p>Comment #661 Scott M. illegible</p>		<p>absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of Front Range entities, most notably withdrawals from the Fraser River watershed, the Colorado-Big Thompson Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the Colorado Big-Thompson system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p> <p>Form Letter Comment #624-5 (ID 1094): <i>The Moffat Firming EIS must acknowledge the critical importance of maintaining periodic flushing flows and the negative impact the loss of these flow would have on the health of the Fraser and Upper Colorado Rivers.</i></p> <p>Response #624-5: High spring flows would still occur with the Moffat Project on-line. Appendix H-4 includes average daily hydrographs for average and wet conditions at key locations throughout the study area. While streamflows would be reduced in average and wet years with a Moffat Project alternative on-line, high flows would still occur during runoff. For example, at the Fraser River near Winter Park gage, the average daily peak flow in a wet year</p>

Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #662 Neal A. Misbach</p> <p>Comment #663 Richard Hennessy</p> <p>Comment #664 Sheila Kittlen</p> <p>Comment #665 illegible illegible</p> <p>Comment #666 Bruce Van Bockern</p> <p>Comment #667 Mike Peterson</p> <p>Comment #668 Laura Cleveland</p> <p>Comment #669 Edward Raegner</p> <p>Comment #670 Gail Van Bockern</p> <p>Comment #671 Dirk illegible</p> <p>Comment #672 Janice and Robert Boynton</p> <p>Comment #673 Julene A. and Kurt Lani</p> <p>Comment #674 B. Boynton</p>		<p>under Full Use of the Existing System would be approximately 190 cubic feet per second (cfs) versus 177 cfs under the Proposed Action, which is a reduction of 13 cfs or 7 percent (%). At the Fraser River below the confluence with Crooked Creek, which is downstream of all Denver Water's diversions in the Fraser River Basin, the average daily peak flow in a wet year under Full Use of the Existing System would be approximately 1,243 cfs versus 1,152 cfs under the Proposed Action. The daily peak flow in an average wet year would be reduced by 91 cfs or 7% at that location. There would be little change in the timing of the peak flow in an average wet year at those locations. At the Winter Park gage, the peak flow in an average wet year under Full Use of the Existing System and the Proposed Action would occur at the same time in late June. Below the confluence with Crooked Creek, the peak flow in an average wet year would be delayed about one week from June 13 to June 21 under the Proposed Action compared to Full Use of the Existing System. The reduction in the peak flow in an average wet year would generally be greatest in the Fraser and Williams Fork river basins due to Denver Water's additional diversions in average and wet years, however, the figures in Appendix H-4 and the additional analyses described below demonstrate that high flows would still occur during runoff with the Moffat Project on-line.</p> <p>Additional information on high flows was added to Sections 4.1 and 5.1 in the FEIS. Information was included on the change in timing and magnitude of peak flows for an average year and wet year for several locations throughout the Fraser and Williams Fork river basins. The locations selected include tributaries with and without bypass requirements. In addition, The Nature</p>

Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #675 Kyley Neff</p> <p>Comment #676 Jon illegible</p> <p>Comment #677 Tiffany Collette</p> <p>Comment #678 C. Olomon and J. Browne</p> <p>Comment #679 Jack Reichert</p> <p>Comment #680 Mitchell Wofford</p> <p>Comment #681 John Wood</p> <p>Comment #682 J.A. Boynton</p> <p>Comment #683 D. Hennessey</p> <p>Comment #684 Bill Browne</p> <p>Comment #685 Dennis Soles</p> <p>Comment #686 Rama A. Davis</p> <p>Comment #687 Justin Bridge</p>		<p>Conservancy's software, Indicators of Hydrologic Alteration (IHA) was used to evaluate the change in frequency, duration, magnitude, and timing of high flow pulses, small floods (2-year flood) and large floods (10-year flood) at the same locations. IHA is a tool for calculating the characteristics of altered hydrologic regimes.</p> <p>Denver Water's diversions from the Fraser River would continue to be subject to bypass requirements pursuant to the right-of-way agreements with the U.S. Forest Service.</p> <p>FEIS Section 5.11 evaluated the impacts of changes to sediment transport, minimum flows, and flushing flows on aquatic resources in the Project area. Appropriate mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effect of peak flow reductions on trout was evaluated in the DEIS and is discussed in more detail in FEIS Sections 3.11, 4.6.11, and 5.11.</p>

Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #688 C. Wood</p> <p>Comment #689 Shawn Carr</p> <p>Comment #690 illegible illegible</p> <p>Comment #691 B. Belew-LaDue</p> <p>Comment #692 K. Meyer</p> <p>Comment #693 Tom Caldwell</p> <p>Comment #694 Claus Muhlbauer</p> <p>Comment #695 David Peterson</p> <p>Comment #696 Amy Peterson</p> <p>Comment #697 James C. Logan, Jr., and James C. Logan</p> <p>Comment #698 Rodney K. Kauber</p> <p>Comment #699 W. R. Westlake</p> <p>Comment #700 Craig Cranston</p>		<p>The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic photos, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p>

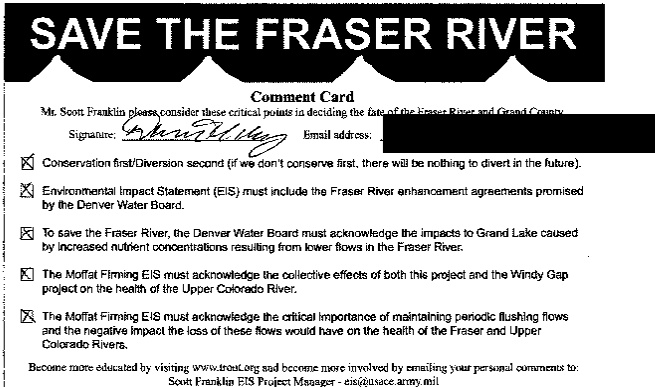
Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #701 Cheryl Key</p> <p>Comment #702 Charles and Suzanne Carroll</p> <p>Comment #703 Ingrid Karlstrom</p> <p>Comment #704 Cathleen Olson</p> <p>Comment #705 Susan Noel</p> <p>Comment #706 John R. Hall</p> <p>Comment #707 Lynda Troccoli</p> <p>Comment #708 Vince Troccoli</p> <p>Comment #709 J. Klem</p> <p>Comment #710 Heinz Engel</p> <p>Comment #711 Marcia Walker</p> <p>Comment #838 Jennifer Bach</p> <p>Comment #841 Ashley Berg</p>		



Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #842 illegible illegible</p> <p>Comment #843 Colin Galbraith</p> <p>Comment #844 Deborah Knutson</p> <p>Comment #845 Traci Holden mailto:traciholden@hotmail.com</p> <p>Comment #846 Jay Pollmann</p> <p>Comment #847 Melissa illegible</p> <p>Comment #848 Stan Wolfe</p> <p>Comment #849 Jennifer Pelaez</p> <p>Comment #850 illegible illegible</p> <p>Comment #851 illegible illegible</p> <p>Comment #1748 Patricia Bellac</p>		


Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
SAVE THE FRASER FORM LETTERS — UNIQUE		
<p>Comment #5 David C. Lady, P.E.</p>	<p>From: David C. Lady [REDACTED] Sent: Monday, November 23, 2009 8:13 AM To: moffat_eis@usace.army.mil. Subject: moffat comment.David Lady</p> <p>Scott, Please see my attached comment card indicating my support of protecting the Fraser River. Additionally, I believe it is the responsible choice to protect the environment and establish regulation protecting the river. I am not against the diversion of water but have seen instances in mid summer where no control has caused entire streambeds to dry up. It doesn't seem logical to me that this should be acceptable.</p> <p>David Lady, P.E. Project Engineer Office: [REDACTED]</p> <p>- Fraser comment card.pdf</p> <p>ATTACHMENTS:</p> <div style="text-align: center;">  <p>SAVE THE FRASER RIVER</p> <p>Comment Card</p> <p>Mr. Scott Franklin please consider these critical points in deciding the fate of the Fraser River and Grand County</p> <p>Signature: <i>David C. Lady</i> Email address: [REDACTED]</p> <p><input checked="" type="checkbox"/> Conservation first/Diversion second (if we don't conserve first, there will be nothing to divert in the future).</p> <p><input checked="" type="checkbox"/> Environmental Impact Statement (EIS) must include the Fraser River enhancement agreements promised by the Denver Water Board.</p> <p><input checked="" type="checkbox"/> To save the Fraser River, the Denver Water Board must acknowledge the impacts to Grand Lake caused by increased nutrient concentrations resulting from lower flows in the Fraser River.</p> <p><input checked="" type="checkbox"/> The Moffat Filling EIS must acknowledge the collective effects of both this project and the Windy Gap project on the health of the Upper Colorado River.</p> <p><input checked="" type="checkbox"/> The Moffat Filling EIS must acknowledge the critical importance of maintaining periodic flushing flows and the negative impact the loss of these flows would have on the health of the Fraser and Upper Colorado Rivers.</p> <p>Become more educated by visiting www.trout.org and become more involved by emailing your personal comments to: Scott Franklin EIS Project Manager - eis@usace.army.mil</p> </div>	<p>Unique Comment #5-1 (ID 237): <i>Additionally, I believe it is the responsible choice to protect the environment and establish regulation protecting the river. I am not against the diversion of water but have seen instances in mid-summer where no control has caused entire streambeds to dry up. It doesn't seem logical to me that this should be acceptable.</i></p> <p>Response #5-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to National Environmental Policy Act of 1969, as amended (NEPA).</p>


Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #785 Teresa Hill</p>	 	<p>Unique Comment #785-1 (ID 988): <i>The most important ecological issue to face our community is the threat to the Fraser River!</i></p> <p>Response #785-1: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #786 Janice B. Hughes</p>	 <p>The top image is a postcard addressed to Janice B. Hughes. It features a return address for Scott Franklin, Moffat EIS Project Manager, at the Corps Denver Regulatory Office. Below the postcard is a 'SAVE THE FRASER RIVER' Comment Card. The card has handwritten notes in blue ink, including 'WATER - EVERY DROP OF IT MATTERS' and 'DENVERITES MUST LOOK AT HOW THEY WASTE WATER WHEN LIVING ON A HIGH DESERT PLAIN PLEASE!'. There are also several checkboxes, some of which are marked with a blue 'X'.</p>	<p>Unique Comment #786-1 (ID 989): <i>"Water - every drop of it matters." Wallace Stegner.</i></p> <p><i>Denverites must look at how they waste water when living on a high desert plain. Please!</i></p> <p>Response #786-1: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>


Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #787 Douglas C. Wilcox</p>	 <p>The image shows a letterhead for Scott Franklin, Moffat EIS Project Manager, Corps Denver Regulatory Office, 9307 S. Wadsworth Blvd, Littleton, CO 80128. A redacted address is visible. A circular Corps seal and a date stamp 'JAN 24 2005' are also present. Below the letterhead is a 'SAVE THE FRASER RIVER' comment card. The card has a title 'Comment Card' and a message from Mr. Scott Franklin. It includes a handwritten signature 'Douglas C. Wilcox' and a handwritten address '9307 S. Wadsworth Blvd, Littleton, CO 80128'. The card also has a handwritten note 'I feel that any further diversion is inexcusable' and a list of checkboxes with handwritten responses.</p>	<p>Unique Comment #787-1 (ID 990): <i>I feel that any further diversion is inexcusable.</i></p> <p><i>Increased flow will do more to bring the health of the river back.</i></p> <p>Response #787-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #788 Donald Walker</p>	<p>[Image not available.]</p>	<p>Unique Comment #788-1 (ID 991): <i>Sand off Berthoud pass and runoff out of Moffat tunnel.</i></p> <p>Response #788-1: Additional water quality analysis was performed on the Fraser River. The Moffat Tunnel discharge permit was evaluated in the FEIS. Discharge of copper into the Fraser River by the Moffat Tunnel is regulated by the State through CDPHE and the National Pollutant Discharge Elimination System discharge permit. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>An additional sediment sampling and transport modeling site was added on the Fraser River to better understand impacts of traction sand. Sensitivity analyses were added to the assessment to evaluate impacts of additional sediment inputs at all model sites. Historic responses of the Fraser River were also completed using aerial photographs and channel cross-section to evaluate past impacts. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes considering traction sand are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>Since the release of the DEIS, Denver Water, the Colorado Department of Transportation, Grand County, and others funded and constructed a sediment removal facility at Denver Water's Fraser River diversion. That project would reduce the sediment load below Denver Water's diversion.</p>

Comment-Response Report (Save the Fraser River Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #852 P. Barry</p>		<p>Unique Comment #852-1 (ID 2677): <i>Economic impact on River driven tourism should also be considered.</i></p> <p>Response #852-1: The socioeconomic impact analyses of the DEIS (Section 4.17) incorporates the conclusions of several other resources, including recreation, surface water, aquatic biological resources and others. The socioeconomic impacts in Grand County was reviewed and expanded as appropriate in FEIS Section 5.19 based on the impacts upon these other resources in considering effects upon the county's tourism industry and economy.</p>

State


Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
STATE		
<p>Comment #766 R. Eric Kuhn, General Manager Colorado River District 201 Centennial Street, P.O. Box 1120 Glenwood Springs, CO 81602</p> <p>and</p> <p>Lorra L. Nichols, Paralegal Colorado River Water Conservation District 201 Centennial Street, P.O. Box 1120 Glenwood Springs, CO 81602</p>	<p>From: Lorra Nichols [mailto:lnichols@crwcd.org] Sent: Wednesday, March 17, 2010 4:58 PM To: MOFFAT.EIS@usace.army.mil Cc: moffatproject@denverwater.org, chips.barry@denverwater.org, david.little@denverwater.org, mcollins@usbr.gov, Eric Kuhn, Peter Fleming, Jason Turner, Ray Tenney, [REDACTED], andrew@tlfirm.com, tramperanches@pcrs.net, Dave Merritt [REDACTED] wrpains@wreawildblue.org, GaryM@co.summit.co.us, jnewberry@co.grand.co.us, jnewberry@coloradowebblink.com, JohnE@co.pitkin.co.us, jon.stavney@eaglecounty.us, [REDACTED], smathis@mmklaw.org, sharp@steamboatlawyers.com, mcf@wic.net, tgray@moffatcounty.net Subject: CRWCD's Comments on the Moffat Collection System Draft EIS</p> <p>Attention: Scott Franklin, Moffat EIS Project Manager, U.S. Army Corps of Engineers</p> <p>Good Afternoon Mr. Franklin:</p> <p>Attached please find the Colorado River Water Conservation District's comments on the Moffat Collection System Draft EIS. I also put the original in the mail to you today. If possible, would you please also accept the Read Receipt for this transmission?</p> <p>Thanks, Lorra</p> <p>Lorra L. Nichols, Paralegal Colorado River Water Conservation District 201 Centennial Street, Suite 200 P. O. Box 1120 Glenwood Springs, CO 81601 (970) 945-8522, ext. 222 (800) 626-3479 (970) 945-8799 fax lnichols@crwcd.org <mailto:lnichols@crwcd.org></p> <p>www.crwcd.org <http://www.crwcd.org/></p> <p>This transmission may contain information that is privileged, confidential and/or exempt from disclosure under law. If you are not the intended recipient, any disclosure, copying, distribution or use of the information in this message, including any reliance thereon by you or any third person, is prohibited. If you have received this message in error, please immediately contact the sender and destroy this message in both electronic and any hard copy formats. Thank you.</p>	<p>Comment #766-3 (ID 3486): <i>Attached please find the Colorado River Water Conservation District's comments on the Moffat Collection System Draft EIS. I also put the original in the mail to you today. If possible, would you please also accept the Read Receipt for this transmission?</i></p> <p>Response #766-3: The U.S. Army Corps of Engineers (Corps) received both the electronic and hard copies of the Colorado River Water Conservation District's comments.</p> <p>Comment #766-19 (ID 3485): <i>This letter contains the comments of the Colorado River District ("River District") on the Moffat Collection System Project ("MCSP") Draft Environmental Impact Statement ("DEIS") and the related Clean Water Act Section 404 permit application. The River District is a political subdivision of the state of Colorado, created pursuant to C.R.S. § 37-46-101, et seq. The River District is comprised of all or parts of 15 western Colorado counties within the drainage basin of the Colorado River and its principal tributaries, including the Yampa, White and Gunnison Rivers. The River District was formed for the purpose of the conservation, use and development of the water resources of the Colorado River Basin for the benefit of all of the inhabitants of the District. The River District also is charged with safeguarding Colorado's entitlement to water under the Colorado River Compact.</i></p> <p>Response #766-19: Prior to making decisions on the proposed Moffat Collection System Project (Moffat Project or Project), the Corps will evaluate and consider the Project's environmental effects according to the National Environmental Policy Act of 1969, as amended (NEPA).</p> <p>Comment #766-17 (ID 3484): <i>The River District has consulted with Grand County,</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>- 3-17-10 Moffat DEIS CRWCD Final Comments.pdf - Moffat DEIS-Table 1.pdf - Figure 1_MoffatSystem_Erodibility_8X11_S.JPG - Figure 2_MoffatSystem_2000_Fire_Hazard_8X11_S.JPG - Figure 3_MoffatSystem_2006_Fire_Hazard_8X11_S.JPG</p>	<p><i>Summit County, Middle Park Water Conservancy District, NWCOG, Trout Unlimited, and Western Resource Advocates in preparing a Joint Rebuttal Statement to the DEIS ("Joint Rebuttal Statement"). The Joint Rebuttal Statement is incorporated herein by this reference. The River District has serious concerns with the DEIS, however, we remain committed to working with the Army Corps of Engineers ("Corps"), Denver Water, Grand and Summit Counties, Middle Park Water Conservancy District, NWCOG, Trout Unlimited, Western Resource Advocates and other interested entities on ways to improve the DEIS and determine appropriate mitigation measures for the Moffat Collection System Project. The River District, Denver Water, and other entities are currently involved in an extensive mediation process that we hope will result in a comprehensive agreement that would address the River District's concerns with the DEIS and the Proposed Action. However in the absence of a comprehensive agreement, the River District maintains that the DEIS fails to sufficiently demonstrate the project need and fails to analyze the true impacts of the Proposed Action. The DEIS shortfalls make the identified and undisclosed impacts unacceptable and the proposed mitigation measures almost meaningless. The River District's primary comments are summarized below.</i></p> <p>Response #766-17: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #766-1 (ID 3483): <i>Denver Water's future water requirements should not be based on its full, average-year (unrestricted) demands.</i></p> <p>Response #766-1: Modeling water supply and annual firm (dry year) yield on the basis of unrestricted demand purposefully excludes consideration of drought response plans for several reasons. Drought responses are primarily intended to</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Attachments:</p> <div style="text-align: center;">  </div> <p style="text-align: center;">March 17, 2010</p> <p style="text-align: right;"><i>VIA E-MAIL and U.S. Mail</i></p> <p>Mr. Scott Franklin, Moffat EIS Project Manager U.S. Army Corps of Engineers, Omaha District Denver Regulatory Office 9307 South Wadsworth Boulevard Littleton, CO 80128</p> <p style="text-align: right;">moffat.es@usace.army.mil</p> <p>Re: <u>Moffat Collection System Project Draft Environmental Impact Statement and Associated Application for a Clean Water Act Section 404 Permit.</u></p> <p>Dear Mr. Franklin:</p> <p>This letter contains the comments of the Colorado River District ("River District") on the Moffat Collection System Project ("MCSPP") Draft Environmental Impact Statement ("DEIS") and the related Clean Water Act Section 404 permit application. The River District is a political subdivision of the state of Colorado, created pursuant to C.R.S. § 37-46-101, <i>et seq.</i> The River District is comprised of all or parts of 15 western Colorado counties within the drainage basin of the Colorado River and its principal tributaries, including the Yampa, White and Gunnison Rivers. The River District was formed for the purpose of the conservation, use and development of the water resources of the Colorado River Basin for the benefit of all of the inhabitants of the District. The River District also is charged with safeguarding Colorado's entitlement to water under the Colorado River Compact.</p> <p>The River District has consulted with Grand County, Summit County, Middle Park Water Conservancy District, NWCOG, Trout Unlimited, and Western Resource Advocates in preparing a Joint Rebuttal Statement to the DEIS ("Joint Rebuttal Statement"). The Joint Rebuttal Statement is incorporated herein by this reference. The River District has serious concerns with the DEIS, however, we remain committed to working with the Army Corps of Engineers ("Corps"), Denver Water, Grand and Summit Counties, Middle Park Water Conservancy District, NWCOG, Trout Unlimited, Western Resource Advocates and other interested entities on ways to improve the DEIS and determine appropriate mitigation measures for the Moffat Collection System Project. The River District, Denver Water, and other entities are currently involved in an extensive mediation process.</p> <p style="text-align: center;">201 Centennial Street / PO Box 1120 * Glenwood Springs, CO 81602 (970) 945-8522 * (970) 945-8799 Fax www.ColoradoRiverDistrict.org</p>	<p>respond to droughts of unknown duration and severity, unexpected emergencies and infrastructure failure. Unlike the Strategic Water Reserve, which is a supply side solution, drought response is a demand side device designed to quickly bring demand down in response to reduced supply. Drought response is temporary in nature and inherently uncertain, driven by immediate conditions. Modeling water supply and firm yield assumes a perfectly operating system over a long period of time. This is a widely accepted approach for evaluating a water utility's ability to meet needs under varying hydrologic conditions, while preserving management's prerogative to deploy drought response as circumstances require. Information was included in the Final Environmental Impact Statement (FEIS) which explains why the Board of Water Commissioner's (Denver Water's) demand was modeled as unrestricted in the Platte and Colorado Simulation Model (PACSM).</p> <p>Comment #766-13 (ID 3482): <i>The DEIS overstates Denver Water's growth in demand (particularly, in the near-term) calling into question the need for, and timing of, the project.</i></p> <p>Response #766-13: Additional data was collected and analyzed for socioeconomic in FEIS Section 5.19. The socioeconomic analysis included an update of demand projections through reviewing the data used in Denver Water's current model and reviewing current population projection data from Denver Regional Council of Governments (DRCOG), Colorado Department of Local Affairs (DOLA), or other agencies, as available, to examine any differences in projected population numbers or rates between the older data and the current data.</p> <p>Comment #766-12 (ID 3481): <i>The DEIS is flawed because the Purpose and Need Statement is too narrow, effectively predetermining the Proposed Action.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 2</p> <p>that we hope will result in a comprehensive agreement that would address the River District's concerns with the DEIS and the Proposed Action. However in the absence of a comprehensive agreement, the River District maintains that the DEIS fails to sufficiently demonstrate the project need and fails to analyze the true impacts of the Proposed Action. The DEIS shortfalls make the identified and undisclosed impacts unacceptable and the proposed mitigation measures almost meaningless.</p> <p>The River District's primary comments are summarized below:</p> <ol style="list-style-type: none"> 1. Denver Water's future water requirements should not be based on its full, average-year (unrestricted) demands. 2. The DEIS overstates Denver Water's growth in demand (particularly, in the near-term) calling into question the need for, and timing of, the project. 3. The DEIS is flawed because the Purpose and Need Statement is too narrow, effectively predetermining the Proposed Action. 4. Denver Water's Intergovernmental Agreement with the City of Arvada should not be used to justify a shortfall in yield to Denver Water's system nor should it be included in the No Action Alternative. 5. The DEIS understates the actual difference between current conditions and the action alternatives. The DEIS therefore does not accurately portray the impacts of the Proposed Action or other alternatives. 6. The DEIS does not adequately analyze the impacts on stream flows, aquatic resources, and water quality caused by the Proposed Action. 7. The DEIS does not address whether the Proposed Action can be implemented legally. Questions exist regarding whether Denver Water is legally entitled to store water diverted from the Fraser and Williams Fork Rivers in an enlarged Gross Reservoir. 8. The DEIS fails to adequately analyze the existing conditions and consider the effects of past actions when addressing the cumulative impacts of the Proposed Action or Action Alternatives. 9. The Proposed Mitigation is inadequate. <p>I. Denver Water's future need should not be based on unrestricted demands</p> <p>The entire DEIS is based on meeting Denver Water's unrestricted demand despite the fact that Denver Water has recognized that its customer demand can be greatly reduced during periods</p>	<p>Response #766-12:</p> <p>The Purpose and Need for the Moffat Project is to develop 18,000 acre-feet per year (AF/yr) of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. This Purpose and Need statement addresses a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This system imbalance leads to vulnerability (or lack of system flexibility) to respond to water collection system outages and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Many underlying, interrelated needs can contribute to the discrete purpose of the Project. The Corps disagrees that the Purpose and Need statement is too narrow. Rather the Corps believes it is appropriate to integrate several underlying needs into one defined purpose, since the multiple needs of the applicant are not "independent" but rather are interconnected in the water supply issues that Denver Water is facing. Failing to address any one of the issues would jeopardize Denver Water's ability to meet projected demand needs. Therefore, supplying water to the Moffat Collection System was appropriately used as a criterion for alternative screening.</p> <p>The Corps did not determine that the Proposed Action is the least environmentally damaging practicable alternative (LEDPA) in the Draft Environmental Impact Statement (DEIS). The Corps will make a determination of the LEDPA based on its review of the information and analysis contained in the FEIS, per the Corps' Section 404 regulations.</p> <p>Comment #766-2 (ID 3480): <i>Denver Water's Intergovernmental Agreement with the City of Arvada should not be used to justify a shortfall in yield to Denver Water's system nor should it be included in the No Action Alternative.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 3</p> <p>of drought by education, voluntary reductions, and the implementation of reasonable restrictions on water-use. The DEIS should have accounted for the decrease in Denver Water's customer demands during times of drought and evaluated alternatives to serve future demands with drought restrictions in place. Denver's critical drought service period must be considered with drought response measures in place.</p> <p>The DEIS identifies, based on the 2002 IRP, that Denver Water's current <u>unrestricted</u> demand is 312,500 AF. DEIS, Table 1-1. Actual demand for treated water in 2002 and 2003 averaged 215,742 AF.¹ DEIS, 1-8. As noted in the DEIS "[t]his represents a decrease of 16% since 2000 and reflects the impact of drought restrictions and conservation programs imposed during 2002 and 2003." <i>Id.</i> Denver Water ended the 2002 water year with 309,874 AF in storage or 46% of system capacity. See Denver Water's 2002 Comprehensive Annual Financial Report ("Financial Report") available at http://www.denverwater.org/search/?criteria=financial+reports, last visited March 16, 2010.</p> <p>Denver Water's conservation efforts have continued to restrain demand growth even as population served by Denver Water grows, demonstrating that conservation is possible and effective. Denver Water has reduced overall per capita water use from 222 gallons per capita per day ("gpcd") in 1990 to 170 gpcd in 2008, 19% lower than average use before the 2002 drought. See 2008 Financial Report. Despite an increase of 13% in tap sales from 1998, Denver Water's demands continue to be lower than before the dry years of 2002-2004 because Denver Water's "customers have embraced the culture of conservation [Denver Water] has been promoting." <i>Id.</i> Denver Water's conservation efforts and Drought Response Plan have worked well in the past and should be expected to perform just as well in the future.</p> <p>Additionally, any shortfall between supplies and demand identified in the DEIS exist only when comparing dry year supplies to unrestricted average year demands. This is an apples to oranges comparison. The DEIS fails to analyze if a shortfall would exist in Denver Water compared dry year supplies with dry year demands or average years supplies with average year demands</p> <p>II. The DEIS overstates Denver Water's growth in demand calling into question the need for the project.</p> <p>"The purpose of the Moffat Collection System Project is to develop 18,000 acre feet per year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant pursuant to the Board of Water Commissioners' commitment to its customers." DEIS, ES-4. The DEIS appears to overstate Denver Water's growth in demand and raises questions regarding the need for the Proposed Action. The DEIS states that Denver Water's current demands are 285,000 AF/yr (2006) DEIS, ES-15. Full use of Denver Water's existing</p> <p>¹ 2002-230,810 AF, 2003-200,673 AF, 2003 Financial Report.</p>	<p>Response #766-2: The need for the Project is 18,000 AF/yr instead of 15,000 AF/yr because Denver Water agreed to allow Arvada to purchase a percentage of increased firm yield that Denver Water is able to achieve in the Moffat Collection System, up to a maximum of 3,000 AF/yr. With a new Project, the need is for an additional 15,000 AF/yr of water supply for Denver Water's customers plus 3,000 AF/yr for Arvada. The discussion of the No Action Alternative states that the Strategic Water Reserve would be reduced to help meet the need for up to an additional 15,000 AF/yr of water supply for Denver Water customers. If a Project is not developed (No Action Alternative), Denver Water does not have an obligation to provide Arvada with up to 3,000 AF/yr.</p> <p>Comment #766-4 (ID 3479): <i>The DEIS understates the actual difference between current conditions and the action alternatives. The DEIS therefore does not accurately portray the impacts of the Proposed Action or other alternatives.</i></p> <p>Response #766-4: The impact analysis was revised in the FEIS to present total environmental effects based on a comparison of Current Conditions (2006) and Full Use with a Project Alternative (2032). FEIS Chapter 4 displays the total environmental effects of the Moffat Project alternatives in combination with other reasonably foreseeable future actions (RFFAs) based on a comparison of the following scenarios.</p> <ul style="list-style-type: none"> • Current Conditions (2006) reflects the related current administration of the Colorado and South Platte river basins, demands, infrastructure, and operations. Under the Current Conditions (2006) scenario, Denver Water's existing average annual demand is 285,000 AF/yr. • Full Use with a Project Alternative (2032) reflects

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 4</p> <p>system is projected in the DEIS to be 345,000 AF. <i>Id.</i> This represents an increase of 60,000 AF over the 10 years from 2006 to 2016.</p> <p>Denver Water's 2002 Integrated Resource Plan indicates that while population has increased substantially overall water demand has declined.² (2002 IRP at 9). Denver Water has, historically, made considerable progress matching its demand with available supply through management actions. Its pre-2002 demand of 331,500 AF/yr was reduced to 255,792 per year in the time since the 2002 drought. 2008 Financial Report. There is no reason to believe that Denver Water will not be able to make similar reductions in its future demand.</p> <p>A review of Denver Water's 2000-2008 financial reports reveal that the average growth in the number of taps served is 2,922 per year (1991-2008). See Table 1 attached. Denver Water reports that the growth in taps served in 2007 and 2008 amounted to 2,472 taps for an average of 1,236 taps per year. <i>Id.</i> This illustrates a decrease in Denver Water's tap sales in recent years. This is contrary to the projected growth of 6,000 AF/yr identified in the DEIS. Increases in taps served provide a good metric by which to assess Denver Water's growth in water demands.³ As noted above the DEIS discloses that Denver Water average annual current demand, reflecting conditions in 2006, is 285,000 AF/yr and that on average this demand is projected to grow by 6,000 AF/yr through 2016. Whether considering the documented recent growth rate of 1236 taps per year or the documented long term average growth of 2,992 taps per year and generously allowing 0.5 acre-foot per tap (per Denver Water's 2008 Financial Report, pg. 1-17 "Households served by Denver Water use an average of 0.40 acre-feet of water per year"), Denver Water's actual demand growth, as represented by growth in taps, appears to be far less than the projected growth represented in the DEIS for the period of 2006 to 2016 of 60,000 acre-feet.⁴</p> <p>According to the DEIS Denver Water is capable, without further expansion of Gross Reservoir, of taking 60,000 additional AF/yr through its existing system. DEIS, ES-15. The 60,000 AF/yr of additional supplies plus the 29,000 AF/yr in conservation identified in the 2002 IRP equals</p> <hr/> <p>² It should be noted that the DEIS does not account for the recent economic downturn and the significant role it will likely play in reducing Denver Water's estimated future demands.</p> <p>³ Denver Water also provides raw water, recycled water and reuse water as reported in the annual financial reports. This number is variable, for instance in 2008 Denver Water delivered 10.6 billion gallons compared with 2006 deliveries of 15 billion gallons, admittedly making the assessment of demand growth for this type of water difficult. Growth in taps was used as an indicator of increases in Denver Water's new demands because the information is the metric most commonly represented in the description of service demands throughout the years. Presumably the 2006 demand reported in the DEIS of 285,000 AF includes the reported 15 billion gallons of non-potable water delivered in 2006. Likewise, the projection of future demand in the DEIS would include the trend which resulted in only 10.8 billion gallons of non-potable water delivered by Denver Water in 2008.</p> <p>⁴ Assuming 0.5 AF per tap and 2992 taps per year the annual average growth in water demand would be 1,496 AF/yr.</p>	<p>conditions in Denver Water's system when the Moffat Project is completed and in full use in 2032. This scenario reflects each action alternative in combination with other RFFAs. Under this scenario, the Moffat Project would be providing 18,000 AF/yr of new firm yield. The FEIS includes an updated 2032 water demand projection for Denver Water.</p> <p>Full Use of Denver Water's existing system reflects the best available projections of demand and supply consistent with current standards of water resource planning. Full Use of the Existing System includes RFFAs including growth in Denver Water's average annual demand to 345,000 AF/year, which Denver Water can achieve with their existing system. Denver Water's existing system is capable of meeting an average annual demand of 345,000 AF/yr, therefore, the hydrologic effects associated with additional diversions that would occur as Denver Water's demand grows to that level are not an impact of the proposed Moffat Project. Denver Water is not responsible for mitigating for the effects of other reasonably foreseeable actions since they are not caused by the Moffat Project. FEIS Chapter 5 presents the effects attributable to the Moffat Project based on a comparison of Full Use of the Existing System and Full Use with a Project Alternative (2032).</p> <p>Comment #766-11 (ID 3478): <i>The DEIS does not adequately analyze the impacts on stream flows, aquatic resources, and water quality caused by the Proposed Action.</i></p> <p>Response #766-11: Please see the response to Comment Identification (ID) 3479.</p> <p>Comment #766-7 (ID 3477): <i>The DEIS does not address whether the Proposed Action can be implemented legally. Questions exist regarding whether Denver Water is legally entitled to store water</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 5</p> <p>89,000 AF/yr. Based on Denver Water's documented average annual growth in taps, 89,000 AF/yr is more than sufficient to serve Denver Water's needs well past 2030.</p> <p>The actual growth in taps realized by Denver Water in recent years does not support the stated need for 18,000 acre-feet of new supply from the Moffat Collection system and therefore the impacts to the environment inherent in the expansion of Gross Reservoir cannot be justified and a 404 permit for the proposed action may not be warranted. The Corps should reevaluate Denver Water's demand and reconsider alternatives prematurely screened based on Denver Water's demand numbers.</p> <p>III. The DEIS is flawed because the Purpose and Need Statement is too narrow, effectively predetermining the Proposed Action.</p> <p>A. The scope of the Purpose and Need Statement of the DEIS is so narrow that it precludes reasonable alternatives.</p> <p>The consideration of alternatives is the "heart of the environmental impact statement." 40 CFR §1502.14. Given the importance associated with the consideration of a reasonable range of alternatives the purpose and need statement may not be defined "so narrowly that it foreclose[s] a reasonable consideration of alternatives." <i>Davis v. Mineta</i>, 302 F.3d 1104, 1119 (10th Cir. 2002). Denver Water describes its need for the MCSP as having four components (1) a reliability need, (2) a vulnerability need, (3) a flexibility need, and (4) a firm yield need. These purposes support a broader "purpose and need statement" than "to develop 18,000 acre-feet per year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant pursuant to the Board of Water Commissioners' commitment to its customers." (DEIS, Sec. 1.2). Moreover, there is no justification for why all four of Denver Water's objectives must be met or should be met through one federal action, as indicated by the purpose and need statement, when more sustainable and less environmentally damaging practicable alternatives may be available. Such a narrow statement prevents objective review of other viable and potentially less environmentally damaging alternatives which may serve Denver Water's needs.</p> <p>The Corps is required by CEQ NEPA regulations to "rigorously explore and objectively evaluate all reasonable alternatives" in preparing an EIS. 40 CFR 1502.14(a). Additionally, the alternatives analysis must comply with the Corps' obligation under its 404(b)(1) guidelines which mandate that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant environmental consequences." 40 CFR 230.10(a).</p> <p>Accordingly, the least environmentally damaging practicable alternative ("LEDPA") must be the focus of the alternatives analysis. The Corps's 404(b)(1) guidelines provide that an alternative is practicable if it is "available and capable of being done after taking into consideration, cost, existing technology, and logistics in light of the overall project purposes." 40 CFR 230.3 (q).</p>	<p><i>diverted from the Fraser and Williams Fork Rivers in an enlarged Gross Reservoir.</i></p> <p>Response #766-7: Denver Water does not believe a change of water right is necessary for uses of water stored in Gross Reservoir enlargement; but if so, there are means to do so. The Corps does not administer Colorado Water Rights. The Corps defers to the State to resolve water law issues. The Corps' analysis for the Environmental Impact Statement (EIS) is based on diversions under Denver Water's existing decrees. When evaluating a permit application, the Corps' regulations provide: "The dispute over property ownership would not be a factor in the Corps public interest decision" (33 Code of Federal Regulations [CFR] 320.4[g]). Whether water rights or other property rights need to be obtained, utilized, expanded, or managed differently in order to fulfill the basic purpose of the proposed action does not preclude the Corps from permitting an otherwise practicable alternative. 40 CFR 230.10. The Corps may issue a Section 404 Permit even if other Federal, State, or local authorizations have not been obtained before the applicant has applied for a permit.</p> <p>Comment #766-6 (ID 3476): <i>The DEIS fails to adequately analyze the existing conditions and consider the effects of past actions when addressing the cumulative impacts of the Proposed Action or Action Alternatives.</i></p> <p>Response #766-6: The Council on Environmental Quality interprets the NEPA regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the action and its alternatives may have a continuing, additive and significant relationship to those effects. The environmental analysis required under</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 6</p> <p>Additionally, the Corps must satisfy the public interest review imposed by 33 CFR 320.4(a), which requires that any decision to issue a permit be "based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest." It is under this rubric that the Corps must proceed with its alternatives analysis while ensuring that the LEDPA is not eliminated from further consideration. The narrow Purpose and Need Statement precludes analysis of less environmentally damaging alternatives.</p> <p>B. The action alternatives identified in the DEIS do not represent a reasonable cross-section of practicable alternatives.</p> <p>The underlying purpose and need for Denver Water is to enhance its overall water supply to meet perceived deficiencies on the north-end of its system. The additional reliability, reduced vulnerability, flexibility, and the firm yield required to meet Denver Water's alleged future demands could be met from many different sources other than additional diversions through the Moffat Collection System. The narrow purpose and need statement has resulted in alternatives that are virtually indistinguishable in that they all require additional diversions from the already environmentally stressed headwaters of the Colorado River basin. This is contrary to NEPA which requires a comparison of alternatives which provide a "clear basis for choice among options by the decisionmaker and the public." 40 CFR 1502.14.</p> <p>The action alternatives analyzed in the DEIS are as follows:</p> <ul style="list-style-type: none"> Proposed Action (Alternative 1a) -Gross Reservoir Expansion (Additional 72,000 AF) Using existing collection infrastructure Fraser River, Williams Fork River, and South Boulder Creek water would be diverted and delivered via the Moffat Tunnel and South Boulder Creek to enlarged Gross Reservoir. Alternative 1c-Gross Reservoir Expansion (Additional 40,700 AF) / New Leyden Gulch Reservoir (31,300 AF) Combine additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek with storage in an enlarged Gross Reservoir and new Leyden Gulch Reservoir. Alternative 8a-Gross Reservoir Expansion (Additional 52,000 AF) / Reusable Return Flows / Gravel Pit Storage (5,000 AF) Alternative would divert additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek (approximately 13,000 AF/yr of new, firm yield) for storage in enlarged Gross Reservoir combined with storage of reusable return flows in gravel pit storage facilities (approximately 5,000 AF/yr of new firm yield). Alternative 10a-Gross Reservoir Expansion (Additional 52,000 AF) / Reusable Return Flows / Denver Basin Aquifer Storage (20,000 AF) 	<p>NEPA is forward-looking, in that it focuses on the potential impacts of the proposed action that an agency is considering. Thus, review of past actions is required to the extent that this review informs agency decision-making regarding the proposed action.</p> <p>The Corps has considered that past water-related actions, such as impoundments and diversions, have affected the Colorado River and are accounted for in the analysis of Current Conditions. The DEIS catalogues a list of past projects in Section 5.2. These projects were included in the PACSM to sufficiently account for and represent past actions. In addition, effects of past actions on existing flows are accounted for and disclosed in the DEIS Chapter 3 Affected Environment, specifically Section 3.1 Hydrology.</p> <p>The Corps provided additional information on past actions in FEIS Section 4.2. This was accomplished by qualitatively assessing the environment approximately 200 feet upstream and downstream of representative Denver Water diversions. The upstream conditions were meant to coincide with pre-diversion conditions. A combination of streams with and without bypass flows were evaluated (e.g., St. Louis Creek, Jim Creek, etc.) using historic photo documentation and aerial photography. Additionally, FEIS Section 3.1.5 was expanded to include a discussion of virgin flows and the percentage of monthly virgin flows diverted by Denver Water. This allows the reader to compare natural flows with past diversions at each of Denver Water's diversions locations modeled in PACSM.</p> <p>Comment #766-10 (ID 3475): <i>The proposed mitigation is inadequate.</i></p> <p>Response #766-10: Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 7</p> <p>Diversion of additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek (approximately 13,000 AF/yr of new, firm yield) for storage in enlarged Gross Reservoir combined with reusable return flows injected into Denver Basin deep aquifer for storage (approximately 5,000 AF/yr of new firm yield).</p> <ul style="list-style-type: none"> Alternative 13a-Gross Reservoir Expansion (Additional 60,000 AF) / Transfer of Agricultural Water Rights / Gravel Pit Storage (3,625 AF) Diversion of additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek (approximately 18,000 AF/yr of new, firm yield) for storage in enlarged Gross Reservoir combined with transfer of South Platte River senior agricultural water rights stored in new gravel pit storage (approximately 3,000 AF/yr of new firm yield). <p>The CEQ states that the emphasis of the alternatives analysis should be on "what is reasonable rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint using common sense, rather than simply desirable from the standpoint of the applicant." <i>Forty Most Asked Questions Concerning NEPA, Question 2a</i>. The DEIS, however, is not true to that mandate. The alternatives accommodate one objective—the objective of Denver Water—to fill an enlarged Gross Reservoir with additional transmountain diversions from the Fraser and Williams Fork Rivers.</p> <p>As noted above each of the action alternatives relies to some degree on increased diversions from the Colorado River basin. Although alternatives 8a, 10a, and 13a, rely in part on water from sources other than the Colorado River basin, the environmental impacts of those alternatives to the Colorado River basin are almost indistinguishable from the environmental impacts identified in the Proposed Action and Alternative 1c which rely solely on additional diversions from the Colorado River basin. DEIS 4-7.</p> <p>The uniformity of these impacts calls into question the range of alternatives evaluated and raises serious questions about whether other practical alternatives were even evaluated. Regardless, the similarity in impacts makes clear that the DEIS fails to provide a broad cross-section of alternatives as required by NEPA.</p> <p>IV. Denver Water's Intergovernmental Agreement with the City of Arvada should not be used to justify a shortfall in yield to Denver Water's system nor should it be included in the No Action Alternative.</p> <p>A. Intergovernmental Agreement with Arvada should not be used to justify a shortfall in yield to Denver Water's Moffat Collection System.</p>	<p>404 Permit.</p> <p>Comment #766-5 (ID 3474): <i>Denver Water's future need should not be based on unrestricted demands. The entire DEIS is based on meeting Denver Water's unrestricted demand despite the fact that Denver Water has recognized that its customer demand can be greatly reduced during periods of drought by education, voluntary reductions, and the implementation of reasonable restrictions on water-use. The DEIS should have accounted for the decrease in Denver Water's customer demands during times of drought and evaluated alternatives to serve future demands with drought restrictions in place. Denver's critical drought service period must be considered with drought response measures in place.</i></p> <p>Response #766-5: Modeling water supply and annual firm yield on the basis of unrestricted demand purposefully excludes consideration of drought response plans for several reasons. Drought responses are primarily intended to respond to droughts of unknown duration and severity, unexpected emergencies and infrastructure failure. Unlike the Strategic Water Reserve which is a supply side solution, drought response is a demand side device designed to quickly bring demand down in response to reduced supply. Drought response is temporary in nature and inherently uncertain, driven by immediate conditions. Modeling water supply and firm yield assumes a perfectly operating system over a long period of time. This is a widely accepted approach for evaluating a water utility's ability to meet needs under varying hydrologic conditions, while preserving management's prerogative to deploy drought response as circumstances require. Implementing mandatory drought restrictions to reduce demand does not result in a 'no shortage of supply' situation. The drought events during 2002 demonstrate that is not the case. There is a current need for new firm yield even with mandatory restrictions imposed during a drought as</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 8</p> <p>Denver Water's estimate of total system demand by 2030 (363,000 AF/yr) includes 3,000 AF/yr for use by the City of Arvada pursuant to a 1999 Intergovernmental Agreement. DEIS 1-14. Denver Water may not use this contract in support of its need for the MCSP. Denver Water's obligation to Arvada under the contract only exists if the MCSP is constructed. <i>Id.</i> Denver Water cannot reasonably rely on this 3,000 AF commitment to justify a system shortfall and need for the project—a commitment that would not exist absent the project. To do so makes the enlargement of Gross Reservoir and increased diversions from the Upper Colorado River basin a self fulfilling prophecy.</p> <p>B. The No Action alternative does not represent the status quo and the Arvada Agreement should not be included in the No Action Alternative.</p> <p>Despite the fact that Denver Water will have no obligation to Arvada unless the MCSP is constructed, the 3,000 AF “obligation” to Arvada is included in the No Action Alternative. DEIS 2-83, 2-92. By erroneously overstating this 2030 demand by 3,000 AF/yr, the Corps has inflated Denver Water's supply shortfall by 20% from 15,000 AF/yr to 18,000 AF/yr. <i>Custer County Action Ass'n v. Garvey</i> 256 F.3d 1024, 1040 (10th Cir.2001) (“In requiring consideration of a no-action alternative, the Council on Environmental Quality intended that agencies compare the potential impacts of the proposed major federal action to the known impacts of maintaining the status quo.”). Overstating Denver Water's demand by 20% in the No Action Alternative artificially diminishes the impacts associated with Proposed Action and Action Alternatives and fails to accurately represent the true environmental impacts and their relationship to the <i>status quo</i>.</p> <p>V. The DEIS understates the actual difference between current conditions and the action alternatives. The DEIS therefore does not accurately portray the impacts of the Proposed Action or other alternatives.</p> <p>There are three temporal definitions developed and utilized by the Corps in the DEIS:</p> <ul style="list-style-type: none"> • Current Conditions (2006) reflects the Denver Water-related current administration of the Colorado River and the South Platte River basins, demands, infrastructure, and operations. • Full Use of Existing System (2016) reflects the operation of Denver Water's existing system and water rights exercised in 2016 at an annual average demand of 345,000 AF/yr, without the proposed project on line. • Full Use with Project (2030) reflects conditions in Denver Water's system when Moffat Project is completed and in full use in 2030. <p>DEIS 4-1. These definitions provide the backdrop for the analysis of water based impacts in the DEIS. However, in many regards the true impacts of the action alternatives are masked because of how these temporal definitions have been utilized. The full extent of the environmental impacts have</p>	<p>discussed in DEIS Section 1.4.4.1.</p> <p>The shortfall of 18,000 AF/yr identified in the Purpose and Need is in meeting an “unconstrained” demand of 363,000 AF/yr. The demand of 363,000 AF/yr takes into account Denver Water's plans to reduce its demand by 16,000 AF/yr by 2032 with additional conservation measures, which are anticipated to achieve long-term sustainable reductions in water use.</p> <p>The modeled unrestricted demand in 2002 (i.e., Current Conditions) was 285,000 AF/yr. A value of 312,500 AF/yr is presented in DEIS Table 1-1 which reflects what the unrestricted demand would have been in 2002 had conservation measures not been implemented since 1980. The conservation savings of 27,500 AF/yr since 1980 are related to public outreach and education, monitoring and audits, conservation rate structures, and other measures shown in Table 1-2 of the DEIS. These conservation measures are independent of temporary reductions in demand that are achieved when the Drought Response Plan is implemented. The values in FEIS Table 1-1 have been updated.</p> <p>Comment #766-9 (ID 3473): <i>The DEIS identifies, based on the 2002 IRP, that Denver Water's current unrestricted demand is 312,500 AF. DEIS, Table 1-1. Actual demand for treated water in 2002 and 2003 averaged 215,742 AF.[1] DEIS, 1-8. As noted in the DEIS “[t]his represents a decrease of 16% since 2000 and reflects the impact of drought restrictions and conservation programs imposed during 2002 and 2003.” Id. Denver Water ended the 2002 water year with 309,874 AF in storage or 46% of system capacity. See Denver Water's 2002 Comprehensive Annual Financial Report (“Financial Report”) available at http://www.denverwater.org/search/?criteria=financial+reports, last visited March 16, 2010. FOOTNOTE: [1] 2002-230,810 AF, 2003-200,673 AF, 2003 Financial Report.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 9</p> <p>not been identified. This makes it impossible for the Corps and the public at large to fully assess the action alternatives as required by NEPA. Additionally, by not fully understanding the impacts, the Corps does not have the ability to avoid impacts as required to issue a 404 permit.</p> <p>A. Modeled "Current Conditions", as represented in the DEIS are misleading and inaccurate.</p> <p>The DEIS does not use actual diversion records and recorded stream flow data to reflect "Current Conditions". DEIS pages 4-11. Instead the DEIS uses modeled diversions to reflect current conditions. <i>Id.</i> The modeled diversions when compared with Denver Water's actual diversions are grossly overstated, thus minimizing the impacts of the depletions associated with the Proposed Action and other alternatives.</p> <p>For instance actual diversion records for Denver Water's collection system show average annual Moffat Tunnel deliveries (1984-2008) in the amount of 57,322 AF/yr. While the modeled "current" diversions through the Moffat Tunnel included in the DEIS are represented as 63,799 AF/yr (DEIS, Table H-7.1) This overstates average annual diversions by 6,477AF. <i>See</i> Rebuttal Report, Section II.A.</p> <p>Likewise the DEIS overstates average diversions through Denver Water's Gurnlick Tunnel and Roberts Tunnel by 17,372 AF collectively. <i>Id.</i> By overstating the average annual diversions the DEIS masks the relative significance of actual future depletions that will be caused by the Proposed Action. Additionally, if the artificially inflated diversions (in excess of 23,000 AF/yr) represents Denver Water's "current" ability, it raises additional questions about the overall need for the project.</p> <p>NEPA requires that an EIS contain high quality information that is scientifically accurate. 40 CFR 1500.1(b). Actual diversion and delivery records exist and should be given preference over the predictions of modeled diversions which contain substantial complicated assumptions that are not readily ascertainable by the general public.</p> <p>There are numerous other examples of how the modeled average diversions do not correlate with actual diversions. <i>See</i> Joint Rebuttal Report, Section II.A. By relying on the modeled versus actual diversions, the DEIS does not truly portray the impacts to the flow based resources, making the conclusions regarding those impacts baseless. By not truly evaluating the impacts the Corps cannot uphold its obligations under NEPA to compare the environmental consequences of the Proposed Action and the alternatives. <i>See</i> 40 CFR §1502.16. Moreover, the Corps cannot determine whether there are alternatives that would have less of an adverse impact as required by 40 CFR §230.10.</p>	<p>Response #766-9: This comment includes facts from the DEIS and the 2002 Comprehensive Annual Financial Report, but does not include a question about the data or a request for any changes. This comment does not require any additional analysis or warrant any changes to the text; no changes were made to the EIS text in response to this comment.</p> <p>Comment #766-16 (ID 3472): <i>Denver Water's conservation efforts have continued to restrain demand growth even as population served by Denver Water grows, demonstrating that conservation is possible and effective. Denver Water has reduced overall per capita water use from 222 gallons per capita per day ("gpcd") in 1990 to 170 gpcd in 2008, 19% lower than average use before the 2002 drought. See 2008 Financial Report. Despite an increase of 13% in tap sales from 1998, Denver Water's demands continue to be lower than before the dry years of 2002-2004 because Denver Water's "customers have embraced the culture of conservation [Denver Water] has been promoting." <i>Id.</i> Denver Water's conservation efforts and Drought Response Plan have worked well in the past and should be expected to perform just as well in the future.</i></p> <p>Response #766-16: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Comment #766-8 (ID 3471): <i>Additionally, any shortfall between supplies and demand identified in the DEIS exist only when comparing dry year supplies to unrestricted average year demands. This is an apples to oranges comparison. The DEIS fails to analyze if a shortfall would exist in Denver Water compared dry year supplies with dry year demands or average years supplies with average year demands.</i></p> <p>Response #766-8: Modeling water supply and annual firm (dry year) yield on</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 10</p> <p>B. The DEIS “front loads” projected future diversions and impacts.</p> <p>The DEIS front loads projected future diversions between “Current Conditions” (2006) and “Full Use Existing System” conditions (2016) thereby masking and understating the true impacts of the MCSP at Build-out (2030). The DEIS states that Denver Water’s current demand (2006) is 285,000 AF/yr and projects that the demand will increase to 345,000 AF by 2016 at Full Use Existing System. DEIS ES-16. This accounts for a 60,000 AF increase in demand or an average increase in demand of 6,000 AF/yr from 2006 to 2016. In contrast, from 2016 to 2030, a fourteen year span, the DEIS discloses that the projected increase in demand will be 18,000 AF or 1,286 AF/yr. <i>Id.</i>, see also, Section II A. of Joint Rebuttal Report.</p> <p>There is no justification for the “front loaded” projected increase in demand between 2006 and 2016 in the DEIS. Nor is the reason for front loading these demands substantiated in the DEIS. See DEIS, Appendix A. This calls into question the Corps’ scrutiny of these demand numbers. The front loading of projected demands masks the relevant significance of future depletions related to the project between 2016 and 2030 by significantly understating them. As a result, the DEIS neglects the impacts that will occur to all flow-related resources between current conditions and 2016 or the Proposed Action. The impacts to the flow-related resources will only be exacerbated by additional diversions. See generally, Section II A. of the Joint Rebuttal Report.</p> <p>C. Utilizing Full Use Existing System (2016) as the baseline against which to analyze impacts is inappropriate.</p> <p>The baseline against which predictions of the effects of the proposed action and reasonable alternatives are compared is a critical component of the NEPA process. <i>American Rivers v. FERC</i>, 201 F.3d 1186, 1195, fn.5 (9th Cir. 2000). If the baseline conditions are not adequately represented in the DEIS there is “simply no way to determine what effect an action will have on the environment and, consequently, no way to comply with NEPA.” <i>Id.</i></p> <p>As noted above, the DEIS inexplicably front loads projected future demands from 2006-2016. The DEIS then compares impacts between Full Use Existing System (2016) and Full Use with Project (2030). Assuming for the sake of argument that the 2006-2016 projected future demands are legitimate establishing, 2016, rather than 2006, as the baseline for measuring impacts and assessing projected future stream flows effectively dismisses and understates the majority of the new diversions and impacts on flow-related resources, resulting in 60,000 AF of the 78,000 AF of depletions over current condition unanalyzed. Utilizing 2016 flows and current environmental conditions as the “baseline” by which to measure impacts is inadequate for determining the effects of the action alternatives on the environment and leaves the Corps without the proper tools to comply with NEPA.</p>	<p>the basis of unrestricted demand purposefully excludes consideration of drought response plans for several reasons. Drought responses are primarily intended to respond to droughts of unknown duration and severity, unexpected emergencies and infrastructure failure. Unlike the Strategic Water Reserve, which is a supply side solution, drought response is a demand side device designed to quickly bring demand down in response to reduced supply. Drought response is temporary in nature and inherently uncertain, driven by immediate conditions. Modeling water supply and firm yield assumes a perfectly operating system over a long period of time. This is a widely accepted approach for evaluating a water utility’s ability to meet needs under varying hydrologic conditions, while preserving management’s prerogative to deploy drought response as circumstances require. Information was included in the FEIS which explains why Denver Water’s demand was modeled as unrestricted in PACSM.</p> <p>Denver Water expresses the capability of its water collection system as the “Firm Yield” that the system can produce. Firm yield is a measure of a raw water supply system’s ability to reliably supply water to meet demand during drought periods. Although firm yield is controlled by drought periods, it is expressed as the average annual demand that can be supplied during a representative hydrologic study period, which includes average, wet and dry years. While the water demand is reported as an average for the study period, the actual modeled water demand and supply varies from day-to-day, month-to-month, and year-to-year. Demands in PACSM are adjusted due to weather conditions. Total annual water demand is greater in a hot, dry year than in a cool, wet year. Variations in water demand are largely attributable to outdoor uses of water, most notably lawn irrigation. Therefore, dry year supplies are compared with dry year demands and average year supplies with average year demands when calculating the firm yield of Denver Water’s system.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 11</p> <p>VI. The DEIS does not adequately analyze the impacts on stream flows, aquatic resources, and water quality caused by the Proposed Action.</p> <p>A. The Study Period used in the DEIS does not reflect the driest and most critical years for the West Slope source streams, thereby ignoring the environmental impacts of the Proposed Action on the source streams under dry year conditions.</p> <p>The DEIS utilizes the modeling results from Denver Water's Platte and Colorado Simulation Model ("PACSM") to model the operation of Denver Water's system. PACSM utilizes, as its period of record, the forty-five years between 1947 and 1991. DEIS 1-15. The representative period, while sufficiently long enough to capture a variety of hydrologic conditions, fails to capture some of the driest and wettest years for the Upper Colorado River basin – the source of the water for the MCSP.</p> <p>The DEIS states that during the study period, from 1947-1991, the five driest years on the West Slope were 1954, 1955, 1963, 1977, and 1981 based on estimated natural flows at the U.S. Geological Survey (USGS) gage on the Colorado River near Kremmling (Kremmling Gauge). DEIS 4-13. However, given the limitation of the period of record utilized in the DEIS a number of the driest years on record are missed. See Joint Rebuttal Report, Section II.A. By excluding these dry years and the related project operations necessary to recover from these years the DEIS fails to truly analyze the impacts to flow based resources.</p> <p>Likewise, the PACSM hydrology period utilized in the DEIS misses a number of the wet years in the Upper Colorado River basin. <i>Id.</i> This demonstrates that the modeled hydrology, which is now nearly 20 years out of date, misses the driest and a number of wet conditions in the Upper Colorado River Basin. By excluding the extreme high and low flow conditions the conclusions reached regarding the effects of these diversions on the Upper Colorado River basin are unreliable as they may underestimate the impacts of the project. The hydrology chosen for PACSM may reflect the critical period in terms of total water supply on Denver Water's system, however it is not reflective of the critical period in terms of hydrology and the impacts to the flow based resources in the Upper Colorado.</p> <p>D. Average daily streamflows are a poor metric for determining impacts to fisheries.</p> <p>The DEIS, through PACSM, relies on average monthly streamflows in Appendices H-3 and H-6. Monthly averages are a poor tool in evaluating impacts to fisheries. Fish and the macroinvertebrates which they consume are flow dependant and need water continually. Averages can mask acute low flows. PACSM output on a daily, monthly and annual basis should be analyzed for the entire study period at the affected study area locations to assess the impacts on the fisheries.</p>	<p>Comment #766-27 (ID 3499): <i>The DEIS overstates Denver Water's growth in demand calling into question the need for the project. "The purpose of the Moffat Collection System Project is to develop 18,000 acre feet per year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant pursuant to the Board of Water Commissioners' commitment to its customers." DEIS, ES-4. The DEIS appears to overstate Denver Water's growth in demand and raises questions regarding the need for the Proposed Action. The DEIS states that Denver Water's current demands are 285,000 AF/yr (2006) DEIS, ES-15. Full use of Denver Water's existing system is projected in the DEIS to be 345,000 AF. <i>Id.</i> This represents an increase of 60,000 AF over the 10 years from 2006 to 2016.</i></p> <p>Response #766-27: No credible evidence has been offered to support the contention that water demand growth has been overstated. Denver Water's demand models were independently reviewed by the Corps for validity and were determined to be reasonable and appropriate for the purpose of developing future water development strategies and establishing the need to develop new firm yield supplies. The models, review process and conclusions are described in the technical memoranda included in Appendix A.</p> <p>Comment #766-29 (ID 3498): <i>Denver Water's 2002 Integrated Resource Plan indicates that while population has increased substantially overall water demand has declined.[2] (2002 IRP at 9). Denver Water has, historically, made considerable progress matching its demand with available supply through management actions. Its pre-2002 demand of 331,500 AF/yr was reduced to 255,792 per year in the time since the 2002 drought. 2008 Financial Report. There is no reason to believe that Denver Water will not be able to make similar reductions in its future demand.</i></p>


Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 12</p> <p>E. The DEIS fails to adequately address the sediment supply to the source streams, the impacts of pine beetle infestation and the potential for fire.</p> <p>As discussed in the Joint Rebuttal Report the DEIS fails to adequately address sediment supplies, pine beetle infestation, and associated fire risks. The sediment supply equations used in the DEIS were developed for the South Platte River and the Two Forks DEIS in 1988. Although the DEIS maintains that this data can be extrapolated to other river basins (DEIS, 3-66) information regarding erodibility in the Fraser River and Williams Fork River basins exists and should have been consulted as a check against the sediment supply equations. Additionally, the DEIS fails to describe potential pine beetle impacts on the existing (2006) and estimated 2016 "baseline" conditions.</p> <p>Review of the soil characteristics and potential erodibility of the soils in the Fraser and Williams Fork River basins (see Figure 1, attached) along with the location of the Moffat Collection System diversions in the Fraser and Williams Fork River basins demonstrates that the diversion points are often located just downstream of the most erodible soils. Increased diversions from these streams may lead to accumulation of additional sediments.</p> <p>The Fraser and Blue River basins have been heavily impacted by the Mountain Pine Beetle epidemic. While there have not yet been significant fires on the scale realized in the South Platte watershed, the potential for catastrophic fire has increased dramatically in the period from 2002 to 2006, see Figures 2 and 3, attached. Even absent a fire the die-off of the infected forest cover in the basins will result in increased sediment yields at the same time Denver Water will be reducing flows by increasing diversions. The potential for increased sedimentation resulting from forest canopy die-off or wildfire and the related ecological effects have not been considered in the DEIS. Consideration of the condition of the Fraser and Blue River water sheds and the potential for the effects of wildfire or forest canopy die-off may indicate significant probability of the conditions Denver Water is seeking to avoid to meet their vulnerability and reliability needs and may show the Proposed Action, and any alternative relying on Fraser or Blue River diversions ineffective as alternatives to meet those needs.</p> <p>VII. The DEIS does not address whether Denver Water is legally entitled to store water diverted from the Fraser and Williams Fork Rivers in an enlarged Gross Reservoir.</p> <p>NEPA regulations mandate that:</p> <p>To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved state or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.</p> <p>40 CFR §1506.3</p>	<p><i>FOOTNOTE: [2] It should be noted that the DEIS does not account for the recent economic downturn and the significant role it will likely play in reducing Denver Water's estimated future demands.</i></p> <p>Response #766-29:</p> <p>Mandatory watering restrictions are designed for short-term reductions in water use during drought and would not independently or reliably meet the required firm yield of 18,000 acre-feet (AF). Additionally, drought responses are not appropriate for long term water supply strategies because Denver Water must always be in a position to respond to immediate, unforeseen shortages in supply. Denver Water is implementing an aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.</p> <p>Recent DRCOG projections (2007) show an average annual growth of 1.63 percent (%) for the Denver area between 2000 and 2020. The 2008 State Demographer projections cited by the U.S. Environmental Protection Agency (EPA) result in average annual growth of 1.76% for the Denver Primary Metropolitan Statistical Area between 2000 and 2020. Both the more recent DRCOG projections and the 2008 State Demographer projections are not inconsistent with the DRCOG projections originally used in Denver Water's model. Additional data was collected and analyzed for socioeconomics in FEIS Section 5.19. The socioeconomic analysis included an update of demand projections through reviewing the data used in Denver Water's current model and reviewing current population projection data from DRCOG, DOLA, or other agencies, as available, to examine any</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 13</p> <p>Changes of Denver's water rights and possibly new water right appropriations are necessary to implement the preferred alternative. Under Colorado water law a change of water right is defined to include change in place of use, time of use, point of diversion, place of storage, and direct application to storage. C.R.S. §37-92-103(5). A change of water right and the approval of the water use practices they encompass are mandatory not discretionary." <i>Empire Lodge Homeowners' Ass'n v. Moyers</i>, 39 P.3d 1139, 1158 (Colo. 2001). A water right in Colorado is obtained by the diversion, in priority, and beneficial use of a specific quantity of water. However, in order to be administered within the prior appropriation system the water right must be lawfully decreed pursuant to statute.</p> <p>Denver Water has not demonstrated that it has the legal right to store Fraser River and Williams Fork River water in Gross Reservoir Enlargement. Additionally, Denver Water has not demonstrated that its use of water outside the Denver metropolitan area will result in a <i>pro tanto</i> reduction of Blue River diversions as required by the Blue River Decree (Consolidated Cases Civil Nos. 2782, 5016, 5017 in the United States District Court for the District of Colorado) or that it has the right to divert water owned by the City of Englewood from Meadow Creek for storage in Gross Reservoir absent the approval of the United States Department of Interior pursuant to the Blue River Decree. Additionally, Denver Water has a legal obligation to reuse its water pursuant to the Blue River Decree. Increased reuse of this water would help satisfy its perceived need for additional supplies.</p> <p>The need for changes to Denver Water's water rights, the water rights of others and/or the possible need for new junior appropriations is not discussed or disclosed in the DEIS despite the requirement of NEPA that the Corps describe its ability to reconcile the Proposed Action with state law. In fact a number of alternatives were eliminated in the screening process due to the need for water rights or other authority which could not be secured within a time certain. The Corps should not issue a permit to Denver Water unless and until Denver Water has demonstrated compliance with Colorado law and that compliance has been confirmed by the Corps.</p> <p>VIII. The DEIS fails to adequately analyze the effects of past actions when addressing the cumulative impacts of the Proposed Action or Action Alternatives.</p> <p>Diversions made by Denver Water and others have already depleted the native supply of the Fraser River (Fraser River near Winter Park) by 60%. Denver Water's future projected depletions at buildout would deplete the virgin flows at this location by roughly 80%. See Figure 1 of Rebuttal Report. Likewise, as disclosed in the DEIS native flows on the Colorado River at Windy Gap and Hot Sulphur Springs have been significantly reduced— 62% and 57% respectively.</p> <p>These past actions and threshold changes should be taken into account by the Corps when considering the Proposed Action. See, CEQ, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis, June 24, 2005, at 1 ("CEQ 2005"), available at http://ceq.hss.doe.gov/nepa/regs/guidance.html, last visited March 11, 2010. "CEQ interprets NEPA and CEQ's NEPA regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent they are relevant and useful in analyzing whether the</p>	<p>differences in projected population numbers or rates between the older data and the current data.</p> <p>Comment #766-28 (ID 3497): <i>A review of Denver Water's 2000-2008 financial reports reveal that the average growth in the number of taps served is 2,922 per year (1991-2008). See Table 1 attached. Denver Water reports that the growth in taps served in 2007 and 2008 amounted to 2,472 taps for an average of 1,236 taps per year. Id. This illustrates a decrease in Denver Water's tap sales in recent years. This is contrary to the projected growth of 6,000 AF/yr identified in the DEIS. Increases in taps served provide a good metric by which to assess Denver Water's growth in water demands.[3] As noted above the DEIS discloses that Denver Water average annual current demand, reflecting conditions in 2006, is 285,000 AF/yr and that on average this demand is projected to grow by 6,000 AF/yr through 2016. Whether considering the documented recent growth rate of 1236 taps per year or the documented long term average growth of 2,992 taps per year and generously allowing 0.5 acre-foot per tap (per Denver Water's 2008 Financial Report, pg. 1-17 "Households served by Denver Water use an average of 0.40 acre-feet of water per year"), Denver Water's actual demand growth, as represented by growth in taps, appears to be far less than the projected growth represented in the DEIS for the period of 2006 to 2016 of 60,000 acre-feet.[4] FOOTNOTES: [3] Denver Water also provides raw water, recycled water and reuse water as reported in the annual financial reports. This number is variable, for instance in 2008 Denver Water delivered 10.6 billion gallons compared with 2006 deliveries of 15 billion gallons, admittedly making the assessment of demand growth for this type of water difficult. Growth in taps was used as an indicator of increases in Denver Water's new demands because the information is the metric most commonly represented in the description of service demands throughout the years. Presumably the 2006 demand reported in the DEIS of 285,000 AF</i></p>

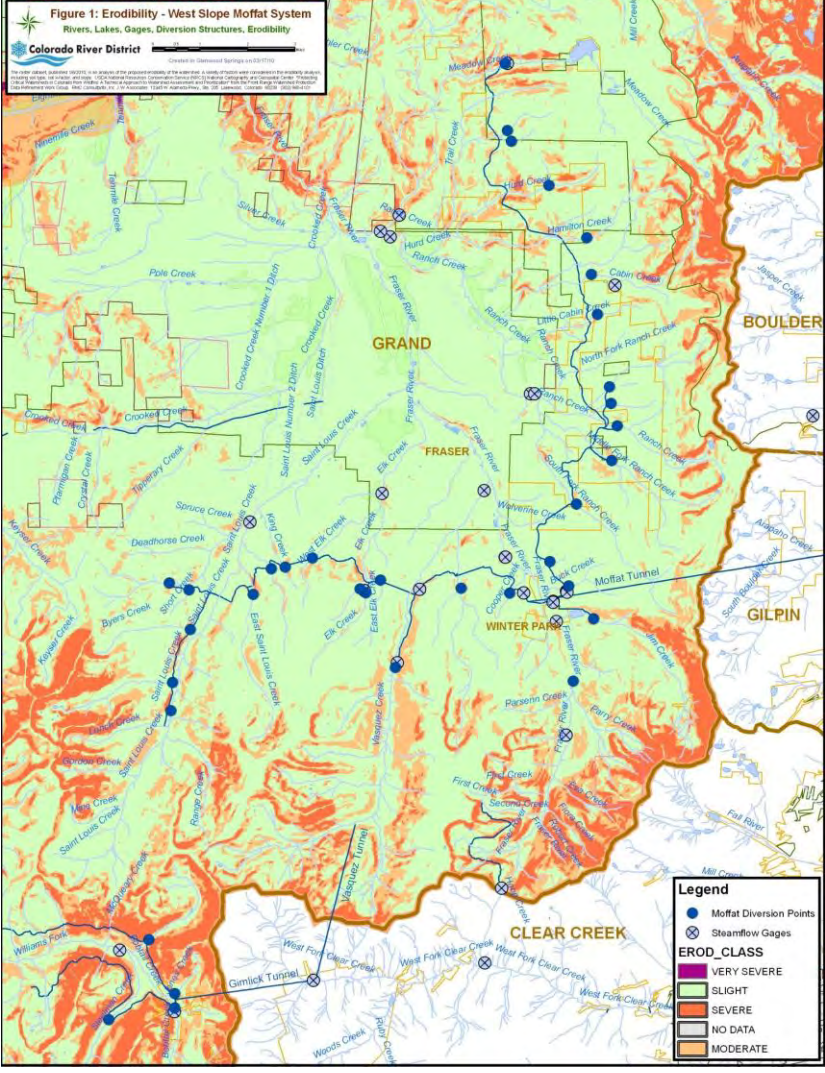
Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Mr. Scott Franklin March 17, 2010 Page 14</p> <p>reasonably foreseeable effects of the agency proposal for action and its alternatives may have a continuing, additive and significant relationship to those effects" <i>Id.</i> While Chapter 5 of the DEIS (Cumulative Effects) recognizes a number of trans-basin diversions it fails to adequately analyze the cumulative impacts of these diversion on the Upper Colorado River basin. <i>See</i> DEIS 5-4.</p> <p>The fact that the Corps did not analyze these past actions infers that the Corps believes these past actions and their impacts are not relevant and or useful in determining whether the Proposed Action will have continuing or additive impacts on the resource—an untenable conclusion when faced with the fact that these stream systems have already been dramatically altered by more than a 50% decrease in virgin stream flow.</p> <p>IX. The Proposed Mitigation is inadequate</p> <p>The DEIS discloses impacts of the project for which no mitigation is proposed. In addition as identified in the comments above and in the Joint Rebuttal Report the DEIS fails to take into account already degraded existing conditions in the Upper Colorado River system. Additionally the methodology used leads to erroneous conclusions of no impact. The Corps 404(b)(1) guidelines requires the mitigation of impacts.</p> <p>The only mitigation proposed in DEIS for West Slope impacts is limited temperature monitoring and mitigation and improvements to Colorado River cutthroat trout habitat. The proposed mitigation is inadequate to mitigate the impacts that are likely to occur under the Proposed Action. The Joint Rebuttal Report suggests a number mitigation measures and conditions for protection of the aquatic environment. We believe that these mitigation measures and conditions are all appropriate and warranted, however, given that the true impacts of the project have not been adequately disclosed there may be the need for additional mitigation and/or conditions prior to the issuance of any permit by the Corps.</p> <p style="text-align: center;">Sincerely,</p> <p style="text-align: center;"></p> <p style="text-align: center;">R. Eric Kuhn General Manager</p> <p>cc: CRWCD Board of Directors Brian Gogas, Denver Water Hamlet Barry, Denver Water Dave Little, Denver Water Mike Collins, U.S. Bureau of Reclamation</p>	<p><i>includes the reported 15 billion gallons of non-potable water delivered in 2006. Likewise, the projection of future demand in the DEIS would include the trend which resulted in only 10.8 billion gallons of non-potable water delivered by Denver Water in 2008. [4] Assuming 0.5 AF per tap and 2992 taps per year the annual average growth in water demand would be 1,496 AF/yr.</i></p> <p>Response #766-28: Single year or even recent short-term historical growth or water use per customer reflects short-term influences and phenomena, such as a recent drought or an economic recession. These types of influences are not by themselves sufficient for long term growth projections and water demand forecasting. Denver Water's water demand forecasting model accounts for the underlying influences on long term demand including a number of demographic and economic variables. Model components also include such items as projected treated water demands, additional contracts, natural replacement and the safety factor. The model structure and methodologies are described in detail in the technical memoranda included in Appendix A of the DEIS.</p> <p>Comment #766-18 (ID 3496): <i>According to the DEIS Denver Water is capable, without further expansion of Gross Reservoir, of taking 60,000 additional AF/yr through its existing system. DEIS, ES-15. The 60,000 AF/yr of additional supplies plus the 29,000 AF/yr in conservation identified in the 2002 IRP equals 89,000 AF/yr. Based on Denver Water's documented average annual growth in taps, 89,000 AF/yr is more than sufficient to serve Denver Water's needs well past 2030.</i></p> <p>Response #766-18: The DEIS explains that Denver Water would be able to meet 345,000 AF of average annual demand by 2016 by relying on the Full Use of the Existing System (an increase of 60,000 AF per year over 2006 conditions which reflects an estimated 285,000 AF of average</p>

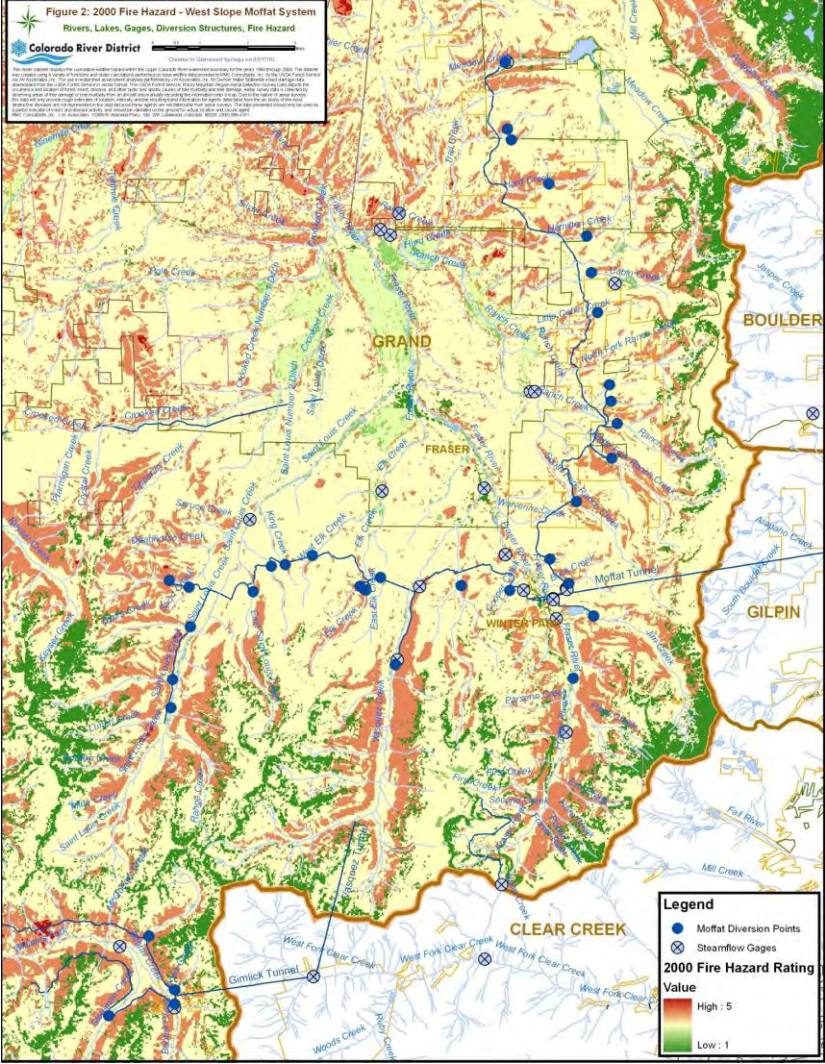
Comment-Response Report (State)

Comment Information	Comment	Comments and Responses																																																																																															
	<p style="text-align: center;">Table 1 Denver Water Demand Growth Analysis Based on Active Taps</p> <table><tr><th>Year</th><th>Active Taps¹</th><th>Annual Change</th><th>3 YR Running Average</th><th>3 YR Running Average Change</th></tr><tr><td>2008</td><td>309,373</td><td>1,294</td><td>308117</td><td>1630</td></tr><tr><td>2007</td><td>308,079</td><td>1,178</td><td>306487</td><td>2171</td></tr><tr><td>2006</td><td>306,901</td><td>2,418</td><td>304316</td><td>2581</td></tr><tr><td>2005</td><td>304,483</td><td>2,918</td><td>301735</td><td>2881</td></tr><tr><td>2004</td><td>301,565</td><td>2,408</td><td>298854</td><td>5171</td></tr><tr><td>2003</td><td>299,157</td><td>3,316</td><td>293683</td><td>5391</td></tr><tr><td>2002</td><td>295,841</td><td>9,790</td><td>288292</td><td>5822</td></tr><tr><td>2001</td><td>286,051</td><td>3,066</td><td>282470</td><td>3704</td></tr><tr><td>2000</td><td>282,985</td><td>4,611</td><td>278766</td><td>3882</td></tr><tr><td>1999</td><td>278,374</td><td>3,436</td><td>274883</td><td>3233</td></tr><tr><td>1998</td><td>274,938</td><td>3,600</td><td>271651</td><td>980</td></tr><tr><td>1997</td><td>271,338</td><td>2,662</td><td>270671</td><td>944</td></tr><tr><td>1996</td><td>268,676</td><td>-3,323²</td><td>269727</td><td>1148</td></tr><tr><td>1995</td><td>271,999</td><td>3,493</td><td>268579</td><td>3272</td></tr><tr><td>1994</td><td>268,506</td><td>3,273</td><td>265308</td><td>2937</td></tr><tr><td>1993</td><td>265,233</td><td>3,049</td><td>262371</td><td></td></tr><tr><td>1992</td><td>262,184</td><td>2,489</td><td></td><td></td></tr><tr><td>1991</td><td>259,695</td><td></td><td></td><td></td></tr></table> <p>¹ Numbers of taps and total water consumed taken from Denver Water Annual Financial Statements 2000 - 2008</p> <p>² A change in the tabulation of service to Broomfield resulted in the negative value</p>	Year	Active Taps ¹	Annual Change	3 YR Running Average	3 YR Running Average Change	2008	309,373	1,294	308117	1630	2007	308,079	1,178	306487	2171	2006	306,901	2,418	304316	2581	2005	304,483	2,918	301735	2881	2004	301,565	2,408	298854	5171	2003	299,157	3,316	293683	5391	2002	295,841	9,790	288292	5822	2001	286,051	3,066	282470	3704	2000	282,985	4,611	278766	3882	1999	278,374	3,436	274883	3233	1998	274,938	3,600	271651	980	1997	271,338	2,662	270671	944	1996	268,676	-3,323 ²	269727	1148	1995	271,999	3,493	268579	3272	1994	268,506	3,273	265308	2937	1993	265,233	3,049	262371		1992	262,184	2,489			1991	259,695				<p>annual demand). However, by 2032 Denver Water’s estimated average annual demand is 379,000 AF per year, an increase of 34,000 AF above the demands met with the existing system. 16,000 AF of that need would be met by conservation as described in Chapter 1 (Purpose and Need) and the 2002 Integrated Resources Plan (IRP); the remaining shortage must be made up in other ways. The 2002 IRP states a conservation goal of 29,000 AF per year by build-out, which would occur sometime after 2030.</p> <p>Comment #766-15 (ID 3495): <i>The actual growth in taps realized by Denver Water in recent years does not support the stated need for 18,000 acre-feet of new supply from the Moffat Collection system and therefore the impacts to the environment inherent in the expansion of Gross Reservoir cannot be justified and a 404 permit for the proposed action may not be warranted. The Corps should reevaluate Denver Water’s demand and reconsider alternatives prematurely screened based on Denver Water’s demand numbers.</i></p> <p>Response #766-15: Additional data was collected and analyzed for socioeconomic in FEIS Section 5.19. The socioeconomic analysis included an update of demand projections through reviewing the data used in Denver Water’s current model and reviewing current population projection data from DRCOG, DOLA, or other agencies, as available, to examine any differences in projected population numbers or rates between the older data and the current data.</p> <p>Denver Water’s projected demand shortfall is not the only issue driving the need for the Moffat Project. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver</p>
Year	Active Taps ¹	Annual Change	3 YR Running Average	3 YR Running Average Change																																																																																													
2008	309,373	1,294	308117	1630																																																																																													
2007	308,079	1,178	306487	2171																																																																																													
2006	306,901	2,418	304316	2581																																																																																													
2005	304,483	2,918	301735	2881																																																																																													
2004	301,565	2,408	298854	5171																																																																																													
2003	299,157	3,316	293683	5391																																																																																													
2002	295,841	9,790	288292	5822																																																																																													
2001	286,051	3,066	282470	3704																																																																																													
2000	282,985	4,611	278766	3882																																																																																													
1999	278,374	3,436	274883	3233																																																																																													
1998	274,938	3,600	271651	980																																																																																													
1997	271,338	2,662	270671	944																																																																																													
1996	268,676	-3,323 ²	269727	1148																																																																																													
1995	271,999	3,493	268579	3272																																																																																													
1994	268,506	3,273	265308	2937																																																																																													
1993	265,233	3,049	262371																																																																																														
1992	262,184	2,489																																																																																															
1991	259,695																																																																																																

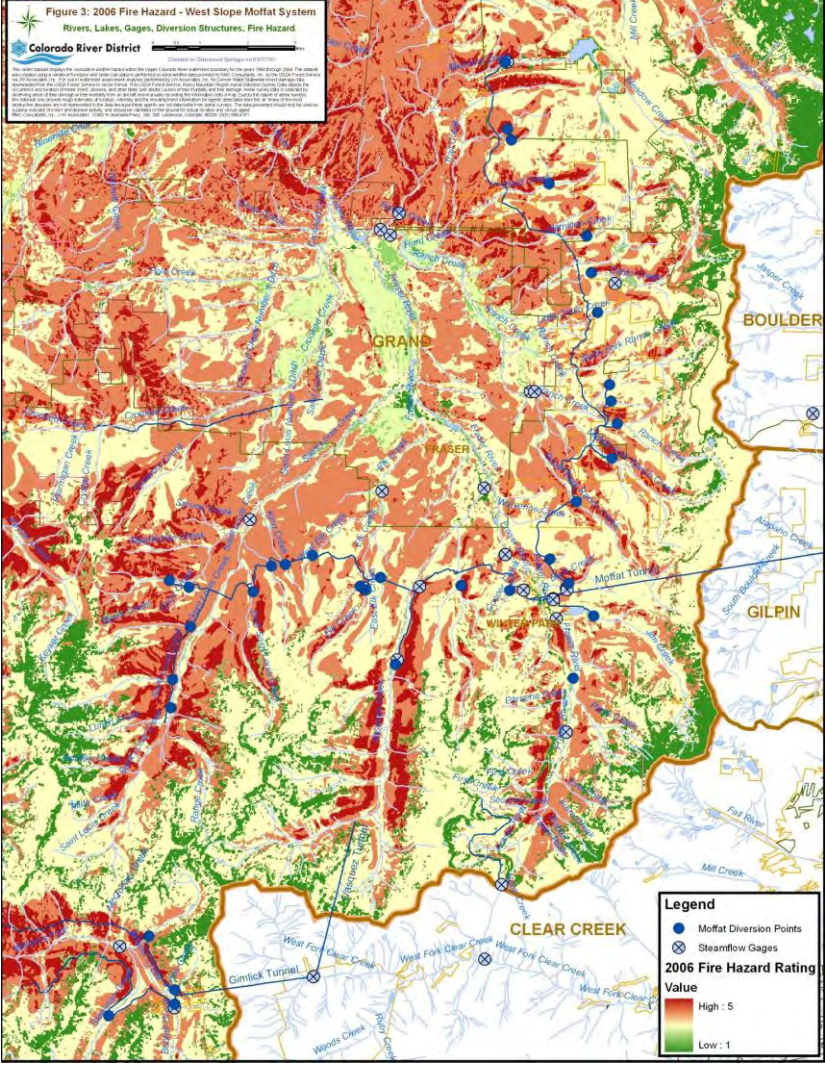
Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Figure 1: Erodibility - West Slope Moffat System Rivers, Lakes, Gages, Diversion Structures, Erodibility Colorado River District</p>  <p>Legend ● Moffat Diversion Points ⊗ Steamflow Gages EROD_CLASS VERY SEVERE SEVERE MODERATE SLIGHT NO DATA</p>	<p>Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can jeopardize Denver Water's ability to meet its present-day water needs. These issues would be addressed with one solution: the addition of 18,000 AF/yr of new firm yield.</p> <p>Comment #766-26 (ID 3494): <i>The DEIS is flawed because the Purpose and Need Statement is too narrow, effectively predetermining the Proposed Action. A. The scope of the Purpose and Need Statement of the DEIS is so narrow that it precludes reasonable alternatives. The consideration of alternatives is the "heart of the environmental impact statement." 40 CFR §1502.14. Given the importance associated with the consideration of a reasonable range of alternatives the purpose and need statement may not be defined "so narrowly that it foreclose[s] a reasonable consideration of alternatives." Davis v. Mineta, 302 F.3d 1104, 1119 (10th Cir. 2002). Denver Water describes its need for the MCSP as having four components (1) a reliability need, (2) a vulnerability need, (3) a flexibility need, and (4) a firm yield need. These purposes support a broader "purpose and need statement" than "to develop 18,000 acre-feet per year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant pursuant to the Board of Water Commissioners' commitment to its customers." (DEIS, Sec. 1.2). Moreover, there is no justification for why all four of Denver Water's objectives must be met or should be met through one federal action, as indicated by the purpose and need statement, when more sustainable and less environmentally damaging practicable alternatives may be available. Such a narrow statement prevents objective review of other viable and potentially less environmentally damaging alternatives which may serve Denver Water's needs.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Figure 2: 2000 Fire Hazard - West Slope Moffat System Rivers, Lakes, Gages, Diversion Structures, Fire Hazard Colorado River District</p> 	<p>Response #766-26: The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. The Corps disagrees that the Purpose and Need statement is too narrow. Rather the Corps believes it is appropriate to integrate several underlying needs into one defined purpose, since the multiple needs of the applicant are not "independent" but rather are interconnected in the water supply issues that Denver Water is facing. Failing to address any one of the issues would jeopardize Denver Water's ability to meet projected demand needs.</p> <p>Comment #766-23 (ID 3493): <i>The Corps is required by CEQ NEPA regulations to "rigorously explore and objectively evaluate all reasonable alternatives" in preparing an EIS. 40 CFR 1502.14(a). Additionally, the alternatives analysis must comply with the Corps' obligation under its 404(b)(1) guidelines which mandate that "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant environmental consequences." 40 CFR 230.10(a). Accordingly, the least environmentally damaging practicable alternative ("LEDPA") must be the focus of the alternatives analysis. The Corps' 404(b)(1) guidelines provide that an alternative is practicable if it is "available and capable of being done after taking into consideration, cost, existing technology, and logistics in light of the overall project purposes." 40 CFR 230.3 (q). Additionally, the Corps must</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Figure 3: 2006 Fire Hazard - West Slope Moffat System Rivers, Lakes, Gages, Diversion Structures, Fire Hazard Colorado River District</p>  <p>Legend ● Moffat Diversion Points ⊗ Steamflow Gages 2006 Fire Hazard Rating Value High : 5 Low : 1</p>	<p><i>satisfy the public interest review imposed by 33 CFR 320.4(a), which requires that any decision to issue a permit be “based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest.” It is under this rubric that the Corps must proceed with its alternatives analysis while ensuring that the LEDPA is not eliminated from further consideration. The narrow Purpose and Need Statement precludes analysis of less environmentally damaging alternatives.</i></p> <p>Response #766-23: The Corps conducted a detailed alternative screening process for the Moffat Project that considered over 300 water sources and infrastructure structural components (Alternatives Screening Report, Corps 2007) including agricultural water transfer, municipal reuse, and various storage locations. The Corps did not identify a LEDPA in the DEIS. The Corps will make a determination of the LEDPA based on its review of the information and analysis contained in the FEIS, per the Corps’ Section 404 regulations. Potential impacts to recreation, among other environmental and social impacts, are considered as part of the LEDPA determination.</p> <p>The Purpose and Need for the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. This Purpose and Need statement addresses a projected shortfall in Denver Water’s supply and an imbalance in Denver Water’s Water Collection System. This system imbalance leads to vulnerability (or lack of system flexibility) to respond to water collection system outages and can seriously jeopardize Denver Water’s ability to meet its present-day water needs. Many underlying, interrelated needs can contribute to the discrete purpose of the Project. The Corps disagrees that the Purpose and Need statement is too narrow. Rather the Corps believes it is appropriate to integrate several underlying needs into one</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>defined purpose, since the multiple needs of the applicant are not "independent" but rather are interconnected in the water supply issues that Denver Water is facing. Failing to address any one of the issues would jeopardize Denver Water's ability to meet projected demand needs. Therefore, supplying water to the Moffat Collection System was appropriately used as a criterion for alternative screening.</p> <p>Comment #766-14 (ID 3492): <i>The action alternatives identified in the DEIS do not represent a reasonable cross-section of practicable alternatives. The underlying purpose and need for Denver Water is to enhance its overall water supply to meet perceived deficiencies on the north-end of its system. The additional reliability, reduced vulnerability, flexibility, and the firm yield required to meet Denver Water's alleged future demands could be met from many different sources other than additional diversions through the Moffat Collection System. The narrow purpose and need statement has resulted in alternatives that are virtually indistinguishable in that they all require additional diversions from the already environmentally stressed headwaters of the Colorado River basin. This is contrary to NEPA which requires a comparison of alternatives which provide a "clear basis for choice among options by the decision maker and the public." 40 CFR 1502.14. The action alternatives analyzed in the DEIS are as follows:</i></p> <ul style="list-style-type: none"> • <i>Proposed Action (Alternative 1a) -Gross Reservoir Expansion (Additional 72,000 AF) Using existing collection infrastructure Fraser River, Williams Fork River, and South Boulder Creek water would be diverted and delivered via the Moffat Tunnel and South Boulder Creek to enlarged Gross Reservoir.</i> • <i>Alternative 1c-Gross Reservoir Expansion (Additional 40,700 AF) / New Leyden Gulch Reservoir (31,300 AF) Combine additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek with storage in an enlarged Gross Reservoir and new Leyden Gulch Reservoir.</i> • <i>Alternative 8a-Gross Reservoir</i>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>Expansion (Additional 52,000 AF) / Reusable Return Flows / Gravel Pit Storage (5,000 AF) Alternative would divert additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek (approximately 13,000 AF/yr of new, firm yield) for storage in enlarged Gross Reservoir combined with storage of reusable return flows in gravel pit storage facilities (approximately 5,000 AF/yr of new firm yield). • Alternative 10a-Gross Reservoir Expansion (Additional 52,000 AF) / Reusable Return Flows / Denver Basin Aquifer Storage (20,000 AF) Diversion of additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek (approximately 13,000 AF/yr of new, firm yield) for storage in enlarged Gross Reservoir combined with reusable return flows injected into Denver Basin deep aquifer for storage (approximately 5,000 AF/yr of new firm yield). • Alternative 13a-Gross Reservoir Expansion (Additional 60,000 AF) / Transfer of Agricultural Water Rights / Gravel Pit Storage (3,625 AF) Diversion of additional Moffat Collection System supplies from Fraser River, Williams Fork River, and South Boulder Creek (approximately 18,000 AF/yr of new, firm yield) for storage in enlarged Gross Reservoir combined with transfer of South Platte River senior agricultural water rights stored in new gravel pit storage (approximately 3,000 AF/yr of new firm yield). The CEQ states that the emphasis of the alternatives analysis should be on “what is reasonable rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint using common sense, rather than simply desirable from the standpoint of the applicant.” Forty Most Asked Questions Concerning NEPA, Question 2a. The DEIS, however, is not true to that mandate. The alternatives accommodate one objective– the objective of Denver Water– to fill an enlarged Gross Reservoir with additional trans-mountain diversions from the Fraser and Williams Fork Rivers. As noted above each of the action alternatives relies to some</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>degree on increased diversions from the Colorado River basin. Although alternatives 8a, 10a, and 13a, rely in part on water from sources other than the Colorado River basin, the environmental impacts of those alternatives to the Colorado River basin are almost indistinguishable from the environmental impacts identified in the Proposed Action and Alternative 1c which rely solely on additional diversions from the Colorado River basin. DEIS 4-7. The uniformity of these impacts calls into question the range of alternatives evaluated and raises serious questions about whether other practical alternatives were even evaluated. Regardless, the similarity in impacts makes clear that the DEIS fails to provide a broad cross-section of alternatives as required by NEPA.</i></p> <p>Response #766-14: The alternative screening process (Alternatives Screening Report, Corps 2007) did consider other water sources (agricultural water transfer, conjunctive use, and municipal reuse) in combination with storage components other than Gross Reservoir. These various water sources and 29 storage components from the “long list” passed the initial Screen 1A, as discussed in DEIS Section 2.1.2, Screen 1B. Two methods of acquiring agricultural water (ID 601) were reviewed: purchase or dry-year lease. It was assumed that the agricultural rights were available downstream of the Metro Wastewater Reclamation District Plant. Other locations, including the Arkansas River Basin, were considered in Screen 1A; however, they were eliminated by the criterion LG1 (Logistics – Geographic Location), Must be within the State of Colorado and in the South Platte and mainstem Colorado river basins. The justification for this criterion, as stated in Table 2-1, is still valid: “Exploring options outside the South Platte and mainstem Colorado river basins would necessitate acquiring water rights from new filings, purchasing and transferring existing water rights, and developing extensive new infrastructure to import the water. Obtaining water from the Gunnison, Yampa, White, North Platte, Rio Grande, San Juan/Dolores, or Arkansas</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>river basins would be extremely difficult, if not impossible, in a timeframe consistent with the Purpose and Need.” This is also a reasonable criterion to use because it did not eliminate a significant number of the water source options being considered in the screening. Numerous alternatives were configured in Screen 1B that do not include expansion of Gross Reservoir. Leyden Gulch Reservoir, plus several other storage components such as Ralston Reservoir, Spring Creek Reservoir, and Box Elder shallow aquifer were used to configure Project alternatives. Refer to Alternatives 6a and 6b, 7a and 7b, 8b, 9a and 9b, 10b-10e, 11a, 12a, and 13b in Table 2-4. Each of these alternatives was legitimately screened out in Screen 1C or Screen 2 for various reasons. The multi-step process of screening a variety of water sources other than Moffat Tunnel water and storage components other than enlarging Gross Reservoir is justified and well-documented.</p> <p>Comment #766-25 (ID 3491): <i>Denver Water’s Intergovernmental Agreement with the City of Arvada should not be used to justify a shortfall in yield to Denver Water’s system nor should it be included in the No Action Alternative. A. Intergovernmental Agreement with Arvada should not be used to justify a shortfall in yield to Denver Water’s Moffat Collection System. Denver Water’s estimate of total system demand by 2030 (363,000 AF/yr) includes 3,000 AF/yr for use by the City of Arvada pursuant to a 1999 Intergovernmental Agreement. DEIS 1-14. Denver Water may not use this contract in support of its need for the MCSP. Denver Water’s obligation to Arvada under the contract only exists if the MCSP is constructed. Id. Denver Water cannot reasonably rely on this 3,000 AF commitment to justify a system shortfall and need for the project—a commitment that would not exist absent the project. To do so makes the enlargement of Gross Reservoir and increased diversions from the Upper Colorado River basin a self-fulfilling prophecy.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Response #766-25: Please see the response to Comment ID 3480. If a project is not developed (No Action Alternative), Denver Water does not have an obligation to provide Arvada with up to 3,000 AF/yr. However, Arvada would still have this demand to be met without an identified supply. Therefore, the Corps believes it is a reasonable and conservative approach to include the 3,000 AF in the predicted Full Use with a Project Alternative (2032) demand in the analysis. There would be a shortage of water supply without a Project, but the demand would still be there.</p> <p>Comment #766-24 (ID 3490): <i>The No Action alternative does not represent the status quo and the Arvada Agreement should not be included in the No Action Alternative. Despite the fact that Denver Water will have no obligation to Arvada unless the MCSP is constructed, the 3,000 AF "obligation" to Arvada is included in the No Action Alternative. DEIS 2-83, 2-92. By erroneously overstating this 2030 demand by 3,000 AF/yr, the Corps has inflated Denver Water's supply shortfall by 20 % from 15,000 AF/yr to 18,000 AF/yr. Custer County Action Ass'n v. Garvey 256 F.3d 1024, 1040 (10th Cir.2001) ("In requiring consideration of a no-action alternative, the Council on Environmental Quality intended that agencies compare the potential impacts of the proposed major federal action to the known impacts of maintaining the status quo."). Overstating Denver Water's demand by 20% in the No Action Alternative artificially diminishes the impacts associated with Proposed Action and Action Alternatives and fails to accurately represent the true environmental impacts and their relationship to the status quo.</i></p> <p>Response #766-24: Please see the response to Comment ID 3480.</p> <p>Comment #766-22 (ID 3489): <i>The DEIS understates the actual difference between current conditions and the action alternatives. The DEIS</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>therefore does not accurately portray the impacts of the Proposed Action or other alternatives. There are three temporal definitions developed and utilized by the Corps in the DEIS: • Current Conditions (2006) reflects the Denver Water-related current administration of the Colorado River and the South Platte River basins, demands, infrastructure, and operations. • Full Use of Existing System (2016) reflects the operation of Denver Water's existing system and water rights exercised in 2016 at an annual average demand of 345,000 AF/yr, without the proposed project on line. • Full Use with Project (2030) reflects conditions in Denver Water's system when Moffat Project is completed and in full use in 2030. DEIS 4-1. These definitions provide the backdrop for the analysis of water based impacts in the DEIS. However, in many regards the true impacts of the action alternatives are masked because of how these temporal definitions have been utilized. The full extent of the environmental impacts has not been identified. This makes it impossible for the Corps and the public at large to fully assess the action alternatives as required by NEPA. Additionally, by not fully understanding the impacts, the Corps does not have the ability to avoid impacts as required to issue a 404 permit.</i></p> <p>Response #766-22: Please see the response to Comment ID 3479.</p> <p>Comment #766-21 (ID 3488): <i>Modeled "Current Conditions", as represented in the DEIS are misleading and inaccurate. The DEIS does not use actual diversion records and recorded stream flow data to reflect "Current Conditions". DEIS pages 4-11. Instead the DEIS uses modeled diversions to reflect current conditions. Id. The modeled diversions when compared with Denver Water's actual diversions are grossly overstated, thus minimizing the impacts of the depletions associated with the Proposed Action and other alternatives. For instance actual diversion records for Denver Water's collection system show average annual Moffat Tunnel deliveries (1984-2008) in the amount of</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>57,322 AF/yr. While the modeled “current” diversions through the Moffat Tunnel included in the DEIS are represented as 63,799 AF/yr (DEIS, Table H-7.1) This overstates average annual diversions by 6,477AF. See Rebuttal Report, Section II.A. Likewise the DEIS overstates average diversions through Denver Water’s Gumlick Tunnel and Roberts Tunnel by 17,372 AF collectively. Id. By overstating the average annual diversions the DEIS masks the relative significance of actual future depletions that will be caused by the Proposed Action. Additionally, if the artificially inflated diversions (in excess of 23,000 AF/yr) represent Denver Water’s “current” ability, it raises additional questions about the overall need for the project. NEPA requires that an EIS contain high quality information that is scientifically accurate. 40 CFR 1500.1(b). Actual diversion and delivery records exist and should be given preference over the predictions of modeled diversions which contain substantial complicated assumptions that are not readily ascertainable by the general public. There are numerous other examples of how the modeled average diversions do not correlate with actual diversions. See Joint Rebuttal Report, Section II.A . By relying on the modeled versus actual diversions, the DEIS does not truly portray the impacts to the flow based resources, making the conclusions regarding those impacts baseless. By not truly evaluating the impacts the Corps cannot uphold its obligations under NEPA to compare the environmental consequences of the Proposed Action and the alternatives. See 40 CFR §1502.16. Moreover, the Corps cannot determine whether there are alternatives that would have less of an adverse impact as required by 40 CFR Section 230.10.</p> <p>Response #766-21: The evaluation of environmental effects due to proposed Moffat Project and other reasonably foreseeable actions was based on a comparison with modeled Current Conditions, which reflects the current administration of the river, demands, infrastructure, and operations. It is not</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>appropriate to evaluate the effects of future Moffat Project diversions based on comparisons with historical information because demands have changed considerably over the course of the study period, certain facilities and reservoirs were not in operation for the entire study period, and river administration and Project operations have changed. For example, it is inaccurate to evaluate the effects of future diversions on flows in the Colorado River at the Hot Sulphur Springs gage based on a comparison with historical flows at that gage because historical flows prior to 1985 do not include the effects of the existing Windy Gap FIRMing Project, which came on-line that year.</p> <p>Modeled Current Conditions Moffat Tunnel diversions (63,799 AF/yr) are higher than average annual Moffat Tunnel diversions for the period from 1984 through 2008 because Current Conditions diversions reflect meeting an average annual demand for Denver Water of 285,000 AF/yr whereas, the average annual demand met during the period from 1984 through 2008 was less. In addition, there are likely differences in the averages because the periods compared are different lengths and may be hydrologically different. It is possible that the period from 1984 through 2008 is wetter overall than the model study period from 1947 through 1991, which would partially explain why the average historical diversions for 1984 through 2008 are less. These reasons also apply to differences in historical versus modeled Gumlick Tunnel and Roberts Tunnel diversions. Modeled diversions through the Moffat Tunnel, Gumlick Tunnel, and Roberts Tunnel under Current Conditions are not artificially inflated.</p> <p>Comment #766-20 (ID 3487): <i>The DEIS “front loads” projected future diversions and impacts. The DEIS front loads projected future diversions between “Current Conditions” (2006) and “Full Use Existing System” conditions (2016) thereby masking and understating the true impacts of the MCSP at Build-out</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>(2030). The DEIS states that Denver Water's current demand (2006) is 285,000 AF/yr and projects that the demand will increase to 345,000 AF by 2016 at Full Use Existing System. DEIS ES-16. This accounts for a 60,000 AF increase in demand or an average increase in demand of 6,000 AF/yr from 2006 to 2016. In contrast, from 2016 to 2030, a fourteen year span, the DEIS discloses that the projected increase in demand will be 18,000 AF or 1,286 AF/yr. Id., see also, Section II.A. of Joint Rebuttal Report. There is no justification for the "front loaded" projected increase in demand between 2006 and 2016 in the DEIS. Nor is the reason for front loading these demands substantiated in the DEIS. See DEIS, Appendix A. This calls into question the Corps' scrutiny of these demand numbers. The front loading of projected demands masks the relevant significance of future depletions related to the project between 2016 and 2030 by significantly understating them. As a result, the DEIS neglects the impacts that will occur to all flow-related resources between current conditions and 2016 or the Proposed Action. The impacts to the flow-related resources will only be exacerbated by additional diversions. See generally, Section II.A. of the Joint Rebuttal Report.</i></p> <p>Response #766-20: As described in Chapter 1 (Purpose and Need) of the DEIS, the projected increase in demands between 2016 and 2032 is 34,000 AF/yr; 16,000 AF/yr of which would be met through various conservation measures under the action alternatives. The projected 34,000 AF shortfall results in an average annual increase in demand of about 2,400 AF. As the Denver area becomes more developed in future years after 2016, the rate of population growth, the number of Denver Water customers and associated water demands would slow with less infill opportunities.</p> <p>The FEIS was revised to address the effects solely of Moffat Project alternatives (Chapter 5) and also to address in more detail total environmental effects- the effects of Moffat Project alternatives in combination with</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>all other past, present and RFFAs between 2006 and 2032 (Chapter 4). Denver Water would be able to meet a maximum of 345,000 AF of demand given their existing supplies and existing system. The Moffat Project would provide an additional 18,000 AF/yr of water.</p> <p>Comment #766-38 (ID 3508): <i>Utilizing Full Use Existing System (2016) as the baseline against which to analyze impacts is inappropriate. The baseline against which predictions of the effects of the proposed action and reasonable alternatives are compared is a critical component of the NEPA process. American Rivers v. FERC, 201 F.3d 1186, 1195, fn.5 (9th Cir. 2000). If the baseline conditions are not adequately represented in the DEIS there is “simply no way to determine what effect an action will have on the environment and, consequently, no way to comply with NEPA.” Id. As noted above, the DEIS inexplicably front loads projected future demands from 2006- 2016. The DEIS then compares impacts between Full Use Existing System (2016) and Full Use with Project (2030). Assuming for the sake of argument that the 2006-2016 projected future demands are legitimate establishing, 2016, rather than 2006, as the baseline for measuring impacts and assessing projected future stream flows effectively dismisses and understates the majority of the new diversions and impacts on flow-related resources, resulting in 60,000 AF of the 78,000 AF of depletions over current condition unanalyzed. Utilizing 2016 flows and current environmental conditions as the “baseline” by which to measure impacts is inadequate for determining the effects of the action alternatives on the environment and leaves the Corps without the proper tools to comply with NEPA.</i></p> <p>Response #766-38: Please see the response to Comment ID 3479.</p> <p>Comment #766-37 (ID 3507): <i>The DEIS does not adequately analyze the impacts on</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>stream flows, aquatic resources, and water quality caused by the Proposed Action. The Study Period used in the DEIS does not reflect the driest and most critical years for the West Slope source streams, thereby ignoring the environmental impacts of the Proposed Action on the source streams under dry year conditions.</i></p> <p>Response #766-37: Please see the response to Comment ID 3505.</p> <p>Comment #766-36 (ID 3506): <i>The DEIS utilizes the modeling results from Denver Water's Platte and Colorado Simulation Model ("PACSM") to model the operation of Denver Water's system. PACSM utilizes, as its period of record, the forty-five years between 1947 and 1991. DEIS 1-15. The representative period, while sufficiently long enough to capture a variety of hydrologic conditions, fails to capture some of the driest and wettest years for the Upper Colorado River basin – the source of the water for the MCSP.</i></p> <p>Response #766-36: Please see the response to Comment ID 3505.</p> <p>Comment #766-35 (ID 3505): <i>The DEIS states that during the study period, from 1947-1991, the five driest years on the West Slope were 1954, 1955, 1963, 1977, and 1981 based on estimated natural flows at the U.S. Geological Survey (USGS) gage on the Colorado River near Kremmling (Kremmling Gauge). DEIS 4-13. However, given the limitation of the period of record utilized in the DEIS a number of the driest years on record are missed. See Joint Rebuttal Report, Section II.A. By excluding these dry years and the related project operations necessary to recover from these years the DEIS fails to truly analyze the impacts to flow based resources. Likewise, the PACSM hydrology period utilized in the DEIS misses a number of the wet years in the Upper Colorado River basin. Id. This demonstrates that</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>the modeled hydrology, which is now nearly 20 years out of date, misses the driest and a number of wet conditions in the Upper Colorado River Basin. By excluding the extreme high and low flow conditions the conclusions reached regarding the effects of these diversions on the Upper Colorado River basin are unreliable as they may underestimate the impacts of the project. The hydrology chosen for PACSM may reflect the critical period in terms of total water supply on Denver Water's system, however it is not reflective of the critical period in terms of hydrology and the impacts to the flow based resources in the Upper Colorado.</i></p> <p>Response #766-35: The model period used in the DEIS from 1947 through 1991 provides a broad range of average, wet, and dry flow conditions for evaluating hydrologic impacts. The characteristics of the study period including the number of years included, range of hydrologic conditions, and sequences of year-types is important, whereas, the specific years in the study period are not relevant because the model relies on natural flows which remove man-made alterations to the water supply. A separate assessment of the 2002-2003 period was completed by Denver Water to determine whether inclusion of an extreme drought year would change conclusions regarding hydrologic effects due to the Moffat Project. Results of that assessment indicated that in drought years like 2002, Denver Water would not divert additional water due to the proposed Moffat Project because Denver Water would already divert the maximum amount physically and legally available under their existing water rights without additional storage in their system. Denver Water's analysis also concluded that for Denver Water's system, the mid-1950's drought is a more severe drought period than the recent drought. Extension of the modeling period would not substantially change the range of hydrologic conditions or the predicted impacts to flows as a result of the proposed Moffat Project.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>The current model study period also addresses the carry-over or recovery effects of additional Denver Water diversions in wet years following dry years like 2002 and 2003. The study period from 1947 through 1991 includes several series of dry years followed by wet years, which illustrate the effects of increased diversions to refill storage. For example, the existing study period includes the mid-1950's drought followed by 1957 (a wet year), 1963 and 1964 (dry years) followed by 1965 (wet year), and 1981 (dry year) followed by several wet years in the mid-1980s. These sequences of years allow for an evaluation of impacts associated with diverting additional water in wet years following dry years. The model study period is suitable for estimating hydrologic effects associated with the EIS alternatives for both direct effects and cumulative effects because it includes a broad range of average, wet, and dry years, and sequences of years that include dry years followed by wet years. The DEIS includes information for years that are reflective of the some of the driest and wettest conditions that have occurred in the past. The PACSM study period does not have to include all of the five driest and wettest years at each location in the study area to accurately characterize hydrologic effects in dry and wet years. Extension of the modeling period to include additional dry and wet years would not substantially change the predicted impacts to flows as a result of the proposed Moffat Project.</p> <p>Comment #766-30 (ID 3504): <i>Average daily streamflows are a poor metric for determining impacts to fisheries. The DEIS, through PACSM, relies on average monthly streamflows in Appendices H-3 and H-6. Monthly averages are a poor tool in evaluating impacts to fisheries. Fish and the macroinvertebrates which they consume are flow dependent and need water continually. Averages can mask acute low flows. PACSM output on a daily, monthly and annual basis should be analyzed for the entire study period at the affected study area locations to assess the impacts on the fisheries.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Response #766-30: A combination of daily and monthly hydrologic data was used for evaluations of resources dependent on flows or reservoir storage contents and levels. Average monthly and annual summaries of stream flows, diversions, reservoir contents, surface elevations, and surface areas for average, wet, and dry conditions were used to support general characterizations of hydrologic changes associated with each Moffat Project alternative. Daily data were used in resource assessments where the magnitude or value of the resource is especially sensitive to daily hydrologic changes and where the use of average, wet, and dry monthly values would mask the severity of the effects on those resources. Daily data was utilized to evaluate effects on several resources, including surface water, aquatic resources, stream morphology, recreation, floodplains, riparian and wetlands areas, wildlife and special status species, and water quality (see DEIS Section 4.1, subheading Use of Daily and Monthly PACSM Data for Resource Evaluations). The assessment of impacts on aquatic biologic resources relied primarily on daily data as opposed to monthly data. For example, fish habitat was simulated with Instream Flow Incremental Methodology for average, wet and dry years. Mean daily flow was used as the time step for each of those year types. Appendices H-4, H-5, and H-6 presents daily flow information at several locations of interest throughout the affected study area. Appendix H-4 includes average daily hydrographs for average, dry and wet conditions. Appendix H-5 includes flow duration curves and Appendix H-6 presents the percentage of days that daily flows would change for various flow increments.</p> <p>Comment #766-34 (ID 3503): <i>The DEIS fails to adequately address the sediment supply to the source streams, the impacts of pine beetle infestation and the potential for fire. As discussed in the Joint Rebuttal Report the DEIS fails to adequately address sediment supplies, pine beetle infestation, and associated fire risks. The sediment supply equations used</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>in the DEIS were developed for the South Platte River and the Two Forks DEIS in 1988. Although the DEIS maintains that this data can be extrapolated to other river basins (DEIS, 3-66) information regarding erodibility in the Fraser River and Williams Fork River basins exists and should have been consulted as a check against the sediment supply equations. Additionally, the DEIS fails to describe potential pine beetle impacts on the existing (2006) and estimated 2016 "baseline" conditions. Review of the soil characteristics and potential erodibility of the soils in the Fraser and Williams Fork River basins [SEE SOURCE FILE FOR FIGURE 1, ERODIBILITY - WEST SLOPE MOFFAT SYSTEM] along with the location of the Moffat Collection System diversions in the Fraser and Williams Fork River basins demonstrates that the diversion points are often located just downstream of the most erodible soils. Increased diversions from these streams may lead to accumulation of additional sediments. The Fraser and Blue River basins have been heavily impacted by the Mountain Pine Beetle epidemic. While there have not yet been significant fires on the scale realized in the South Platte watershed, the potential for catastrophic fire has increased dramatically in the period from 2002 to 2006, [SEE SOURCE FILE FOR FIGURE 2, 2000 FIRE HAZARD - WEST SLOPE MOFFAT SYSTEM, and FIGURE 3, 2006 FIRE HAZARD - WEST SLOPE MOFFAT SYSTEM.]. Even absent a fire the die-off of the of the infected forest cover in the basins will result in increased sediment yields at the same time Denver Water will be reducing flows by increasing diversions. The potential for increased sedimentation resulting from forest canopy die-off or wildfire and the related ecological effects have not been considered in the DEIS. Consideration of the condition of the Fraser and Blue River water sheds and the potential for the effects of wildfire or forest canopy die-off may indicate significant probability of the conditions Denver Water is seeking to avoid to meet their vulnerability and reliability needs and may show the Proposed Action, and any alternative relying on Fraser or Blue River diversions ineffective as</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>alternatives to meet those needs.</i></p> <p>Response #766-34: Sediment loads derived from measured data is believed to be more accurate than loads developed from general soil loss equations. Sediment supply equations used in the FEIS were derived from an extensive field sediment sampling program conducted within the impacted watersheds for the Two Forks EIS. Additional data collected by the U.S. Forest Service (USFS) was reviewed and included along with additional information on sediment supply equation derivation in FEIS Section 4.6.3.</p> <p>The analyses of stream morphology was supplemented in the FEIS. Additional assessments included added sampling sites, review of historic data, sensitivity analysis of sediment supply and sediment transport equations, and an assessment of Phase 2 sediment transport. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>The effects as a result of pine beetle infestation alone would not impact channel morphology, however forest lost and vegetation community changes from the beetle could potentially have several impacts. Pine beetle kills could result in decreased sediment supply as dying forests decrease overhead shading resulting in increased groundcover and mid-story vegetation, therefore decreasing erosion potential. Pine beetle could also result in increased sediment supply if a large fire were to occur, fueled by the killed timber increasing erosion potential.</p> <p>In the event of a large scale fire, sediment supply would likely significantly increase for a finite amount of time. Sediment deposition from increased erosion would be expected to occur in streams during this time. As groundcover and the forest regenerates, sediment supply would be reduced and likely return to levels near Current</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Conditions. As revegetation occurs, sediment supply would decrease and at some point during the revegetation process sediment supply would once again drop below sediment transport capacity. When sediment transport capacity exceeds sediment supply, sediment that had been deposited as a result of the fire would begin to erode and transport downstream. The system would continue along this erosional process until it returned to its equilibrium.</p> <p>The proposed Project would result in decreased sediment transport capacity. Following a major fire it can therefore be predicted that either with or without the Project, the river system would eventually return to the same dynamic state. The duration of time required for the stream to return to equilibrium would likely be greater with the proposed Project.</p> <p>DEIS Section 4.1 (FEIS Section 5.1) under the subheading Sediment Supply explains in a qualitative means how pine beetle could impact the river systems. Information about the relationship of the Project and mountain pine beetle has been added to the vegetation analysis in FEIS Section 5.7.</p> <p>Comment #766-33 (ID 3502): <i>The DEIS does not address whether Denver Water is legally entitled to store water diverted from the Fraser and Williams Fork Rivers in an enlarged Gross Reservoir. NEPA regulations mandate that: To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved state or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law. 40 CFR §1506.3 Changes of Denver's water rights and possibly new water right appropriations are necessary to implement the preferred alternative. Under Colorado water law a change of water right is defined to include</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>change in place of use, time of use, point of diversion, place of storage, and direct application to storage. C.R.S. §37-92-103(5). A change of water right and the “approval of the water use practices they encompass are mandatory not discretionary.” Empire Lodge Homeowners’ Ass’n v. Moyers, 39 P.3d 1139, 1158 (Colo. 2001). A water right in Colorado is obtained by the diversion, in priority, and beneficial use of a specific quantity of water. However, in order to be administered within the prior appropriation system the water right must be lawfully decreed pursuant to statute. Denver Water has not demonstrated that it has the legal right to store Fraser River and Williams Fork River water in Gross Reservoir Enlargement. Additionally, Denver Water has not demonstrated that its use of water outside the Denver metropolitan area will result in a pro tanto reduction of Blue River diversions as required by the Blue River Decree (Consolidated Cases Civil Nos. 2782, 5016, 5017 in the United States District Court for the District of Colorado) or that it has the right to divert water owned by the City of Englewood from Meadow Creek for storage in Gross Reservoir absent the approval of the United States Department of Interior pursuant to the Blue River Decree. Additionally, Denver Water has a legal obligation to reuse its water pursuant to the Blue River Decree. Increased reuse of this water would help satisfy its perceived need for additional supplies. The need for changes to Denver Water’s water rights, the water rights of others and/or the possible need for new junior appropriations is not discussed or disclosed in the DEIS despite the requirement of NEPA that the Corps describe its ability to reconcile the Proposed Action with state law. In fact a number of alternatives were eliminated in the screening process due to the need for water rights or other authority which could not be secured within a time certain. The Corps should not issue a permit to Denver Water unless and until Denver Water has demonstrated compliance with Colorado law and that compliance has been confirmed by the Corps.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Response #766-33: FEIS Section 4.3.1 discusses the Colorado River Cooperative Agreement (CRCA). This agreement contains clarification on Denver Water's service area. Denver Water's recycled water system is the largest in Colorado. Denver Water treats and delivers billions of gallons of recycled water every year for industrial, commercial and outdoor irrigation uses. Once build-out is complete, the recycled water system would be used for non-potable uses, freeing up enough potable water to serve almost 43,000 households. Refer to Section 1.3.1.4 in the DEIS for a discussion of Denver Water's non-potable recycling facility. Additionally, one of the RFFAs discussed in FEIS Section 4.3.1 (Water Infrastructure and Supply Efficiency), describes an arrangement between several metropolitan entities to make more use of Denver Water's unused reusable water.</p> <p>Please also refer to the response to Comment ID 3477.</p> <p>Comment #766-32 (ID 3501): <i>The DEIS fails to adequately analyze the effects of past actions when addressing the cumulative impacts of the Proposed Action or Action Alternatives. Diversions made by Denver Water and others have already depleted the native supply of the Fraser River (Fraser River near Winter Park) by 60%. Denver Water's future projected depletions at build out would deplete the virgin flows at this location by roughly 80%. See Figure 1 of Rebuttal Report. Likewise, as disclosed in the DEIS native flows on the Colorado River at Windy Gap and Hot Sulphur Springs have been significantly reduced– 62% and 57% respectively. These past actions and threshold changes should be taken into account by the Corps when considering the Proposed Action. See, CEQ, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis, June 24, 2005, at 1 ("CEQ 2005"), available at http://ceq.hss.doe.gov/nepa/regs/guidance.html, last visited March 11, 2010. "CEQ interprets NEPA and CEQ's NEPA regulations on cumulative effects as requiring</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>analysis and a concise description of the identifiable present effects of past actions to the extent they are relevant and useful in analyzing whether the reasonably foreseeable effects of the agency proposal for action and its alternatives may have a continuing, additive and significant relationship to those effects.” Id. While Chapter 5 of the DEIS (Cumulative Effects) recognizes a number of trans-basin diversions it fails to adequately analyze the cumulative impacts of these diversion on the Upper Colorado River basin. See DEIS 5-4. The fact that the Corps did not analyze these past actions infers that the Corps believes these past actions and their impacts are not relevant and or useful in determining whether the Proposed Action will have continuing or additive impacts on the resource—an untenable conclusion when faced with the fact that these stream systems have already been dramatically altered by more than a 50% decrease in virgin stream flow.</i></p> <p>Response #766-32: Please see the response to Comment ID 3476.</p> <p>Comment #766-31 (ID 3500): <i>The Proposed Mitigation is inadequate The DEIS discloses impacts of the project for which no mitigation is proposed. In addition as identified in the comments above and in the Joint Rebuttal Report the DEIS fails to take into account already degraded existing conditions in the Upper Colorado River system. Additionally the methodology used leads to erroneous conclusions of no impact. The Corps 404(b)(1) guidelines requires the mitigation of impacts. The only mitigation proposed in DEIS for West Slope impacts is limited temperature monitoring and mitigation and improvements to Colorado River cutthroat trout habitat. The proposed mitigation is inadequate to mitigate the impacts that are likely to occur under the Proposed Action. The Joint Rebuttal Report suggests a number mitigation measures and conditions for protection of the aquatic environment. We believe that these mitigation measures and conditions are all appropriate</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>and warranted, however, given that the true impacts of the project have not been adequately disclosed there may be the need for additional mitigation and/or conditions prior to the issuance of any permit by the Corps.</i></p> <p>Response #766-31: The cumulative effects analysis for the Moffat Project evaluated past and present actions that continue to influence existing environmental conditions. The cumulative effects analysis also included reasonably foreseeable actions that, when combined with one of the Project alternatives, result in a cumulative effect on the environment. For purposes of organization of the EIS, cumulative effects were evaluated in two timeframes: (1) past or ongoing present actions and (2) future actions. Each of these two timeframes includes a discussion of water-based and land-based actions.</p> <p>Appropriate conceptual mitigation components were incorporated into FEIS Appendix M. If a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required as appropriate.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
<p>Comment #782 Mike King, Deputy Director Colorado Department of Natural Resources 1313 Sherman Street, Room 718 Denver, CO 80203</p>	<p>From: Mitchell, Rebecca [mailto:Rebecca.Mitchell@state.co.us] Sent: Wednesday, March 17, 2010 11:06 PM To: MOFFAT.EIS@usace.army.mil Subject: moffat comments</p> <p><moffatlh.doc></p>	<p>Comment #782-5 (ID 4621): <i>Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the Moffat Collection System Project (Moffat Project), proposed by the City and County of Denver Board of Water Commissioners (Denver Water). The comments contained herein are submitted by the Colorado Department of Natural Resources Executive Director's Office (DNR) on behalf of three of its constituent divisions, including the Colorado Water Conservation Board (CWCB), the Division of Water Resources (DWR) and the Division of Wildlife (DOW). These comments provide a broad summary of the divisions' respective reviews of the DEIS and will be supplemented by additional information that will be submitted on March 21, 2010.</i></p> <p>Response #782-5: The Corps notes the comment.</p> <p>Comment #782-4 (ID 4622): <i>Colorado Water Conservation Board The Colorado Water Conservation Board (CWCB) aids in the protection and development of the waters of the state. The agency is responsible for water project planning and finance, stream and lake protection, flood hazard identification and mitigation, weather modification, river restoration, water conservation and drought planning, water information, and water supply protection. The agency also is responsible for helping to maintain the State's ability to utilize and develop its entitlements under interstate compacts and equitable apportionment decrees in accordance with state water law. On-going basin and state-wide water resources planning efforts conducted under the auspices of Colorado's Interbasin Compact Committee (IBCC) and the Colorado Water Conservation Board (CWCB) indicate a significant shortfall between developed supplies and projected future demand for municipal and industrial (M&I) water. Conservation and properly compensated agricultural water transfers will be critical in meeting Colorado's future water supply needs,</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Attachments:</p> <div style="text-align: center;">  <p>STATE OF COLORADO</p> <p>OFFICE OF THE EXECUTIVE DIRECTOR Department of Natural Resources 1313 Sherman Street, Room 718 Denver, CO 80203 Phone: (303) 866-3311 Fax: (303) 866-2115 dnr.state.co.us</p> <p>COLORADO DEPARTMENT OF NATURAL RESOURCES</p> </div> <p>March 17, 2010</p> <p>Scott Franklin, Moffat EIS Project Mgr US Army Corps of Engineers 9307 South Wadsworth Blvd., Littleton, CO 80128 E-mail: moffat_eis@usace.army.mil</p> <p>Dear Mr. Franklin:</p> <p>Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the Moffat Collection System Project (Moffat Project), proposed by the City and County of Denver Board of Water Commissioners (Denver Water). The comments contained herein are submitted by the Colorado Department of Natural Resources Executive Director's Office (DNR) on behalf of three of its constituent divisions, including the Colorado Water Conservation Board (CWCB), the Division of Water Resources (DWR) and the Division of Wildlife (DOW). These comments provide a broad summary of the divisions' respective reviews of the DEIS and will be supplemented by additional information that will be submitted on March 21, 2010.</p> <p>Colorado Water Conservation Board</p> <p>The Colorado Water Conservation Board (CWCB) aids in the protection and development of the waters of the state. The agency is responsible for water project planning and finance, stream and lake protection, flood hazard identification and mitigation, weather modification, river restoration, water conservation and drought planning, water information, and water supply protection. The agency also is responsible for helping to maintain the State's ability to utilize and develop its entitlements under interstate compacts and equitable apportionment decrees in accordance with state water law.</p>	<p><i>but these sources alone will not eliminate the need for new water supply facilities or the expansion of existing facilities. The CWCB regards the proposed Moffat Project as one of several new or expanded projects currently under construction or in the planning and permitting stages that, along with conservation and agricultural water transfers, are important to meeting future M&I demands in the heavily populated South Platte Basin. Development of the Moffat Project must comply with all applicable laws, regulations, agreements, and court rulings and decrees, including but not limited to Colorado's water rights system, Colorado's interstate compact obligations, and compensatory mitigation to address impacts to fish, wildlife, and other environmental and social resources.</i></p> <p>Response #782-4: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #782-3 (ID 4623): <i>Division of Water Resources The Colorado Division of Water Resources (DWR) is responsible for the administration of water rights under Colorado's prior appropriation system and in accordance with Colorado Supreme Court decisions, water court decrees, interstate compact obligations, and rules and regulations issued by the State Engineer. Accordingly, DWR's role vis a vis the proposed project is limited to its implementation and operation under Colorado's prior appropriation system and appurtenant decisions, decrees, compact entitlements and obligations, and rules and regulations. DWR expects that the proposed project will operate in accordance with existing water rights and decrees, and further expects that project proponents and federal permitting agencies will keep DWR informed of future decisions pertaining to enhancement opportunities and agreements the parties may wish to pursue under a final Mitigation Plan or in addition to such Plan. It is DWR's understanding that, in addition to mitigating Moffat Project</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>On-going basin and state-wide water resources planning efforts conducted under the auspices of Colorado's Interbasin Compact Committee (IBCC) and the Colorado Water Conservation Board (CWCB) indicate a significant shortfall between developed supplies and projected future demand for municipal and industrial (M&I) water. Conservation and properly compensated agricultural water transfers will be critical in meeting Colorado's future water supply needs, but these sources alone will not eliminate the need for new water supply facilities or the expansion of existing facilities. The CWCB regards the proposed Moffat Project as one of several new or expanded projects currently under construction or in the planning and permitting stages that, along with conservation and agricultural water transfers, are important to meeting future M&I demands in the heavily populated South Platte Basin. Development of the Moffat Project must comply with all applicable laws, regulations, agreements, and court rulings and decrees, including but not limited to Colorado's water rights system, Colorado's interstate compact obligations, and compensatory mitigation to address impacts to fish, wildlife, and other environmental and social resources.</p> <p>Division of Water Resources</p> <p>The Colorado Division of Water Resources (DWR) is responsible for the administration of water rights under Colorado's prior appropriation system and in accordance with Colorado Supreme Court decisions, water court decrees, interstate compact obligations, and rules and regulations issued by the State Engineer. Accordingly, DWR's role vis a vis the proposed project is limited to its implementation and operation under Colorado's prior appropriation system and appurtenant decisions, decrees, compact entitlements and obligations, and rules and regulations. DWR expects that the proposed project will operate in accordance with existing water rights and decrees, and further expects that project proponents and federal permitting agencies will keep DWR informed of future decisions pertaining to enhancement opportunities and agreements the parties may wish to pursue under a final Mitigation Plan or in addition to such Plan.</p> <p>It is DWR's understanding that, in addition to mitigating Moffat Project impacts, Denver Water is working with interested parties to offer additional environmental enhancements opportunities. These enhancement opportunities have not yet been made public but may include bypass agreements. As the project progresses, the DWR requests that it be kept informed as to the agreements made pursuant to and in addition to the Mitigation Plan, including any agreements that contemplate bypass water flows. Please be aware that, as noted above, DWR administers water pursuant to court decrees, state statutes, compacts, and promulgated rules and regulations. Private bypass flow agreements are not enforced by the DWR.</p> <p>With respect to operation of the proposed project under Colorado's compact entitlements and obligations the DWR will perform administration consistent with properly promulgated rules and regulations.</p>	<p><i>impacts, Denver Water is working with interested parties to offer additional environmental enhancements opportunities. These enhancement opportunities have not yet been made public but may include bypass agreements. As the project progresses, the DWR requests that it be kept informed as to the agreements made pursuant to and in addition to the Mitigation Plan, including any agreements that contemplate bypass water flows. Please be aware that, as noted above, DWR administers water pursuant to court decrees, state statutes, compacts, and promulgated rules and regulations. Private bypass flow agreements are not enforced by the DWR. With respect to operation of the proposed project under Colorado's compact entitlements and obligations the DWR will perform administration consistent with properly promulgated rules and regulations.</i></p> <p>Response #782-3: Denver Water states that it intends to follow Colorado water law and the administration of the State Engineer's Office (SEO) in implementing the Moffat Project.</p> <p>Pursuant to C.R.S. 37-60-122.2, Denver Water prepared a Fish and Wildlife Mitigation Plan to mitigate potential impacts of the Moffat Project on the State's fish and wildlife resources. Denver Water also prepared a Fish and Wildlife Enhancement Plan to enhance fish and wildlife resources beyond the levels that currently exist or that would exist with the Moffat Project (refer to FEIS Appendix M for a copy of these plans). In June 2011, the Colorado Wildlife Commission unanimously approved these plans and authorized CPW to enter into an Intergovernmental Agreement (IGA) with Denver Water to implement the Fish and Wildlife Enhancement Plan. In July 2011, the CWCB adopted the Fish and Wildlife Mitigation Plan. The Fish and Wildlife Mitigation Plan is the official State position on mitigation of impacts to fish and wildlife resources. The enhancement opportunities referred to in the comment have now been made public in</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Division of Wildlife</p> <p>The Division of Wildlife (DOW) protects, preserves, enhances, and manages wildlife and its environment for the use, benefit and enjoyment of the people of Colorado and its visitors. DOW has reviewed the DEIS relative to the proposed project's anticipated impacts to wildlife and its environment, and will be providing detailed comments regarding the manner in which the DEIS characterizes these impacts and possible mitigation measures to offset these impacts. In addition, pursuant to state law, DOW is working with the project proponents to develop a Mitigation Plan. DOW believes this Mitigation Plan should form a key part of the project's overall mitigation requirements, and should complement mitigation measures that may be required or undertaken to satisfy federal natural resource protection requirements.</p> <p>Thank you for the opportunity to comment on the Moffat Collection System Project DEIS. Again, more detailed comments on the DEIS will be submitted under separate cover by DNR on Monday, March 21.</p> <p>Sincerely,</p> <p>Mike King Deputy Director.</p>	<p>the CRCA, which is the result of five years of negotiations between Denver Water and 34 West Slope entities. This agreement provides for: (1) resolution of historic conflicts and a holistic approach to resolving Colorado water disputes, (2) cooperative, long-term efforts to improve the health of the Colorado River mainstem and its tributaries, and (3) additional water supply for those who live, work and recreate on the West Slope and for customers of Denver Water. Denver Water and the West Slope parties have been actively engaged with the State of Colorado officials from CDNR, Colorado Division of Water Resources (CDWR), and the Attorney General's office, as well as with officials from the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), to discuss and resolve issues related water resources and implementation of the agreement. A description of the CRCA can be found in FEIS Section 4.3.1 and a copy of the CRCA appears in FEIS Appendix M.</p> <p>Comment #782-2 (ID 4624): <i>Division of Wildlife The Division of Wildlife (DOW) protects, preserves, enhances, and manages wildlife and its environment for the use, benefit and enjoyment of the people of Colorado and its visitors. DOW has reviewed the DEIS relative to the proposed project's anticipated impacts to wildlife and its environment, and will be providing detailed comments regarding the manner in which the DEIS characterizes these impacts and possible mitigation measures to offset these impacts. In addition, pursuant to state law, DOW is working with the project proponents to develop a Mitigation Plan. DOW believes this Mitigation Plan should form a key part of the project's overall mitigation requirements, and should complement mitigation measures that may be required or undertaken to satisfy federal natural resource protection requirements.</i></p> <p>Response #782-2: The Corps coordinated with the U.S. Fish and Wildlife Service (USFWS) and Colorado Parks and Wildlife (CPW)</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>(previously called Colorado Division of Wildlife) regarding the Fish and Wildlife Coordination Act and Colorado Revised Statute (C.R.S.) 37-60-122.2., including participation in State Wildlife Commission workshops regarding Project effects on wildlife and recommended mitigation measures. This information is summarized in the Fish and Wildlife Coordination Act Report in FEIS Appendix G. It would have been premature to include the Fish and Wildlife Coordination Act Report in the DEIS because the Corps had not yet received feedback from the USFWS and CPW.</p> <p>The Fish and Wildlife Mitigation Plan (pursuant to C.R.S. 37-60-122.2) was developed by Denver Water and was adopted by the Colorado Wildlife Commission on June 9, 2011 and by the Colorado Water Conservation Board (CWCB) on July 13, 2011.</p> <p>Comment #782-1 (ID 4625): <i>Thank you for the opportunity to comment on the Moffat Collection System Project DEIS. Again, more detailed comments on the DEIS will be submitted under separate cover by DNR on Monday, March 21.</i></p> <p>Response #782-1: The Corps received the follow-up letter prepared by the Colorado Department of Natural Resources (CDNR) and incorporated it into the public record for the Moffat Project.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
<p>Comment #865 Jim Pokrandt, Chair Colorado River Basin Roundtable P.O. Box 1120 Glenwood Springs, CO 81602</p>	<p>From: Jim Pokrandt [mailto:jpokrandt@crwcd.org] Sent: Wednesday, March 17, 2010 11:38 AM To: MOFFAT.EIS@usace.army.mil Subject: Moffat Project DEIS comment letter</p> <p>Dear ACOE staff: Please accept the attached comment letter regarding the Moffat Tunnel Project. Thanks for extending the deadline.</p> <p>Jim Pokrandt Colorado River Basin Roundtable Glenwood Springs, Colo. 970.945.8522 x 236 970.319.1807 cell -Moffat Project ACOE Comment_Color Basin RT 3_17.pdf</p>	<p>Comment #865-3 (ID 3458): <i>Dear ACOE staff: Please accept the attached comment letter regarding the Moffat Tunnel Project. Thanks for extending the deadline.</i></p> <p>Response #865-3: The Corps notes the comment.</p> <p>Comment #865-6 (ID 3457): <i>The Colorado River Basin Roundtable (CBRT) appreciates the opportunity to provide comments to the Army Corps of Engineers (ACOE) on the Draft Environmental Impact Statement (DEIS) for the Moffat Project. The Colorado River Basin Roundtable was created in 2005 by the Colorado General Assembly through passage of House Bill 1177. Its membership consists of representatives of agriculture, industry, municipal water providers, counties, cities, environmental organizations and recreation organizations. The CBRT is one of nine Roundtables, representing similar interests in each of the river basins within Colorado. The Roundtables are mandated to develop water-demand analyses for consumptive and non-consumptive uses within their respective basins. The CBRT also is exploring the water demands of future energy development in western Colorado. Another role of the Roundtables is to collaborate with other Roundtables to resolve water-supply issues in Colorado. The Moffat Project is a water-supply project of the Denver Water that identifies additional trans-mountain diversions from the headwaters of the Colorado River in Grand and Summit counties. The Project impacts headwater counties as well as downstream water interests represented on the CBRT. The CBRT is obligated to comment on the project and to urge the ACOE to fully describe the project, its alternatives, and resulting impacts. The CBRT believes that the resulting document will become the basis for negotiations among Roundtables over mitigation of this and other trans-mountain diversion projects. A number of local governments and organizations with representation</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Attachments:</p> <p style="text-align: center;">COLORADO BASIN ROUNDTABLE P.O. BOX 1120 GLENWOOD SPRINGS, CO. 81602</p> <p style="text-align: center;"><small>JIM FORRESTER, CHAIR 878-643-4511, 878-643-4512 JIM@COLORADOBASIN.ORG</small></p> <p style="text-align: center;"><small>LORALINE CHERRY, VICE CHAIR JIM GARDNER, VICE CHAIR</small></p> <p>March 17, 2010</p> <p>Scott Franklin Moffat EIS Project Manager U.S. Army Corps of Engineers 9307 South Wadsworth Blvd, Littleton, CO 80128 <i>By email: moffat.eis@usace.army.mil</i></p> <p>Re: Moffat Collection System Project (NOW-2002080762 DEN) Request for Extension of Public Comments on the Draft EIS</p> <p>The Colorado River Basin Roundtable (CBRT) appreciates the opportunity to provide comments to the Army Corps of Engineers (ACOE) on the Draft Environmental Impact Statement (DEIS) for the Moffat Project.</p> <p>The Colorado River Basin Roundtable was created in 2005 by the Colorado General Assembly through passage of House Bill 1177. Its membership consists of representatives of agriculture, industry, municipal water providers, counties, cities, environmental organizations and recreation organizations. The CBRT is one of nine Roundtables, representing similar interests in each of the river basins within Colorado. The Roundtables are mandated to develop water-demand analyses for consumptive and non-consumptive uses within their respective basins. The CBRT also is exploring the water demands of future energy development in western Colorado. Another role of the Roundtables is to collaborate with other Roundtables to resolve water-supply issues in Colorado.</p> <p>The Moffat Project is a water-supply project of the Denver Water that identifies additional trans-mountain diversions from the headwaters of the Colorado River in Grand and Summit counties. The Project impacts headwater counties as well as downstream water interests represented on the CBRT. The CBRT is obligated to comment on the project and to urge the ACOE to fully describe the project, its alternatives, and resulting impacts. The CBRT believes that the resulting document will become the basis for negotiations among Roundtables over mitigation of this and other trans-mountain diversion projects.</p> <p>A number of local governments and organizations with representation on the CBRT have written comment letters to the ACOE. Although the CBRT does not have the means to replicate the detail of these comments, it asserts that the questions and concerns being raised are important and should be adequately addressed. We believe that this will ensure that the real impacts and benefits from the Moffat Project are properly defined, providing a better foundation for future mitigation discussions and negotiations.</p> <p style="text-align: right;">1</p>	<p><i>on the CBRT have written comment letters to the ACOE. Although the CBRT does not have the means to replicate the detail of these comments, it asserts that the questions and concerns being raised are important and should be adequately addressed. We believe that this will ensure that the real impacts and benefits from the Moffat Project are properly defined, providing a better foundation for future mitigation discussions and negotiations.</i></p> <p>Response #865-6: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #865-5 (ID 3456): <i>The following issues are primary concerns of the CBRT and its members: Compliance of the Draft Environmental Statement with NEPA and Council on Environmental Quality (CEQ) Regulations The CBRT questions whether the document fully complies with statutory requirements for a DEIS, in accordance with NEPA and the CEQ statutory and regulatory requirements. There is some question that the scope of this DEIS is so narrowly defined that it violates Section 102 of NEPA and CEQ Regulation 1502. The Environmental Protection Agency notes that "Section 102 requires federal agencies to incorporate environmental considerations in their planning and decision-making through a systematic, interdisciplinary approach. Specifically, all federal agencies are to prepare detailed statements assessing the environmental impact of and alternatives to major federal actions significantly affecting the environment." In separate letters, members of the Colorado River Basin Roundtable are expressing that they do not believe many significant issues have been completely and comprehensively addressed. In some instances, no analyses have been provided for these issues. We share these concerns and ask that the ACOE addresses these concerns as required. Also, the DEIS does not provide adequate and comprehensive information for making a</i></p>


Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">COLORADO BASIN ROUNDTABLE P.O. BOX 1120 GLENWOOD SPRINGS, CO. 81602</p> <p style="font-size: small; text-align: center;">John R. HARRINGTON, Chair 970-943-8122 ext 26 john.harrington@colorado.gov</p> <p style="font-size: small; text-align: center;">LORRIE L. CORRALEY, Vice Chair 3181 CHARTER, VAIL CO. CO 970-943-8122 ext 26</p> <p>The following issues are primary concerns of the CBRT and its members:</p> <p><u>1 – Compliance of the Draft Environmental Statement with NEPA and Council on Environmental Quality (CEQ) Regulations</u></p> <p>The CBRT questions whether the document fully complies with statutory requirements for a DEIS, in accordance with NEPA and the CEQ statutory and regulatory requirements. There is some question that the scope of this DEIS is so narrowly defined that it violates Section 102 of NEPA, and CEQ Regulation 1502. The Environmental Protection Agency notes that “Section 102 requires federal agencies to incorporate environmental considerations in their planning and decision-making through a systematic, interdisciplinary approach. Specifically, all federal agencies are to prepare detailed statements assessing the environmental impact of and alternatives to major federal actions significantly affecting the environment.” In separate letters, members of the Colorado River Basin Roundtable are expressing that they do not believe many significant issues have been completely and comprehensively addressed. In some instances, no analyses have been provided for these issues. We share these concerns and ask that the ACOE addresses these concerns as required.</p> <p>Also, the DEIS does not provide adequate and comprehensive information for making a determination as to whether the Moffat Project avoids, minimizes, or adequately mitigates environmental impacts, as required by the Clean Water Act.</p> <p><u>2- Cumulative Effects</u></p> <p>The DEIS opens its brief chapter on Cumulative Effects citing from NEPA the definition of cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions and regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). It then continues, “The cumulative effects analysis for the Moffat Project evaluates past and present actions that continue to influence existing environmental conditions. The cumulative effects analysis also includes reasonably foreseeable actions that, when combined with one of the Project alternatives, result in a cumulative effect on the environment.”</p> <p>The DEIS as currently written fails to follow through on this foundation for adequate consideration of past, present, and reasonably foreseeable actions. The entire cumulative</p> <p style="text-align: right;">2</p>	<p><i>determination as to whether the Moffat Project avoids, minimizes, or adequately mitigates environmental impacts, as required by the Clean Water Act.</i></p> <p>Response #865-5: The Corps applied rigorous and scientifically acceptable methodology for each resource analyzed for the Moffat Project in order to comply with Clean Water Act Section 404 Guidelines. The direct, indirect, and cumulative effects were evaluated for each resource in DEIS Chapter 5 and FEIS Chapter 4. Additionally, impact thresholds (no impact, negligible, minor, moderate, major) were applied to each resource to allow for comparison of impacts between alternatives.</p> <p>Comment #865-4 (ID 3455): <i>Cumulative Effects The DEIS opens its brief chapter on Cumulative Effects citing from NEPA the definition of cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions and regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). It then continues, “The cumulative effects analysis for the Moffat Project evaluates past and present actions that continue to influence existing environmental conditions. The cumulative effects analysis also includes reasonably foreseeable actions that, when combined with one of the Project alternatives, result in a cumulative effect on the environment.” The DEIS as currently written fails to follow through on this foundation for adequate consideration of past, present, and reasonably foreseeable actions. The entire cumulative impact and effect analysis needs to be reconsidered to be realistic. This DEIS does not comport with the intent and direction as given by NEPA and the CEQ.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">COLORADO BASIN ROUNDTABLE P.O. BOX 1120 GLENWOOD SPRINGS, CO. 81602</p> <p style="text-align: center;"><small>JIM KIRKENDALL, CHAIR 970-943-8122 ext 26 jimkirkendall@colorado.gov</small></p> <p style="text-align: center;"><small>LORRIE CORRAL, VICE CHAIR JIM CHAFFIN, VICE CHAIR</small></p> <p>impact and effect analysis needs to be reconsidered to be realistic. This DEIS does not comport with the intent and direction as given by NEPA and the CEQ.</p> <p><u>3 – The Shoshone Hydro Power Plant Call</u></p> <p>The Shoshone Hydro Power Plant in Glenwood Canyon holds a 1902 water right for 1,250 cubic feet per second on a year-round basis and provides significant protections for water users downstream of the Moffat Project and other headwater diversions by virtue of its senior place in the priority system and its nonconsumptive nature. It is the linchpin of numerous agreements between the Front Range and West Slope, including the existing Moffat diversions as established in 1936. The Shoshone Call is also the foundation of several current and proposed projects being developed in the Colorado Basin.</p> <p>The CBRT is concerned about the survival of the Shoshone call and the effects that the loss or permanent reduction of this call may have on operations of the existing and proposed Moffat diversions, in conjunction with other major trans-mountain diversions in the Colorado River headwaters.</p> <p>The future plans of Xcel, the current owner of the power plant, are uncertain. Details of current negotiations occurring between Denver Water and western Colorado water interests are unknown to the CBRT and the ACOE. In 2002, Xcel and Denver Water agreed to temporarily reduce the call by one half so that diversions and storage needs could still be met upstream. Despite assurances that this was only temporary, Denver Water then negotiated a 25-year agreement on relaxation of the call under certain conditions and appears to be working to make that permanent.</p> <p>The DEIS fails to consider the impact of permanent or temporary call reductions, or in the worst case, the complete loss of the Shoshone Call in its analysis of cumulative impacts or other impacts to future river-flow scenarios. The impacts and implications from a loss or reduction of the Shoshone Call must be addressed prior to the release of the Final EIS for the Moffat Project.</p> <p><u>4 – Support for CBRT Member individual comments and concerns</u></p> <p>Finally, the CBRT is grappling with many water-supply issues and proposals within the Colorado Basin, some for consumptive uses and others for non-consumptive uses. The Roundtable wishes to ensure that the Moffat Project is fully evaluated so that cumulative impacts can be properly determined and mitigation provided.</p>	<p>Response #865-4:</p> <p>The EIS describes the potential cumulative effects that would result from the Moffat Project combined with other projects and activities based on NEPA and Section 404(b)(1) criteria. The regulations for implementing NEPA define cumulative impacts as the impact on the environment which results from the incremental impact of the action when added to other past, present, and RFFAs and regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from “individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). This regulation refers only to the cumulative impact of direct and indirect effects of the Proposed Action and its alternatives when added to the aggregate effects of past, present, and RFFAs.</p> <p>The Section 404 regulations state that “cumulative impacts are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems” (40 CFR 230.11[g][1]).</p> <p>The cumulative effects analysis for the Moffat Project evaluated past and present actions that continue to influence existing environmental conditions. The cumulative effects analysis also included reasonably foreseeable actions that, when combined with one of the Project alternatives, result in a cumulative effect on the environment. For purposes of organization of the EIS cumulative effects were evaluated in two timeframes: (1) past or ongoing present actions, and (2) future actions. Each of these two timeframes includes a discussion of water-based or land-based actions.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;">COLORADO BASIN ROUNDTABLE P.O. BOX 1120 GLENWOOD SPRINGS, CO. 81602</p> <p style="font-size: small; text-align: center;">Jim Pokrandt, Chair 970-943-8122 ext 10 jim.pokrandt@colorado.gov</p> <p style="font-size: small; text-align: center;">LORILEE CORRALEY, Vice Chair 3181 CHARTER, VANCE CREEK 970-943-8122 ext 10</p> <p>The CBRT supports the more detailed comments submitted individually by its member organizations, such as Summit County, Grand County, the Colorado River District, Trout Unlimited and others. The CBRT requests that the ACOE fully analyzes and addresses each of the issues raised by those member comments as required under Section 102 of the Act.</p> <p>The CBRT recommends that the ACOE follows a suggestion from several members that the Final EIS and Record of Decision process be "open ended" so that full consideration of these three studies can be incorporated into the environmental impact analysis and proper mitigations be devised based on the results.</p> <p>The CBRT is sending these comments to the Colorado Department of Natural Resources, the Metro Basin Roundtable, the South Platte Basin Roundtable and Denver Water. The Bureau of Reclamation will also be copied. We hope that these comments can help to initiate meaningful discussions between the Roundtables toward a resolution of not only these issues, but also to promote equitable solutions that provide water to all needs for Colorado's future.</p> <p>Sincerely,</p>  <p>Jim Pokrandt Chair Colorado River Basin Roundtable</p> <p style="text-align: center;">4</p>	<p>Comment #865-2 (ID 3454): <i>The Shoshone Hydro Power Plant Call The Shoshone Hydro Power Plant in Glenwood Canyon holds a 1902 water right for 1,250 cubic feet per second on a year-round basis and provides significant protections for water users downstream of the Moffat Project and other headwater diversions by virtue of its senior place in the priority system and its non-consumptive nature. It is the linchpin of numerous agreements between the Front Range and West Slope, including the existing Moffat diversions as established in 1936. The Shoshone Call is also the foundation of several current and proposed projects being developed in the Colorado Basin. The CBRT is concerned about the survival of the Shoshone call and the effects that the loss or permanent reduction of this call may have on operations of the existing and proposed Moffat diversions, in conjunction with other major trans-mountain diversions in the Colorado River headwaters. The future plans of Xcel, the current owner of the power plant, are uncertain. Details of current negotiations occurring between Denver Water and western Colorado water interests are unknown to the CRBT and the ACOE. In 2002, Xcel and Denver Water agreed to temporarily reduce the call by one half so that diversions and storage needs could still be met upstream. Despite assurances that this was only temporary, Denver Water then negotiated a 25-year agreement on relaxation of the call under certain conditions and appears to be working to make that permanent. The DEIS fails to consider the impact of permanent or temporary call reductions, or in the worst case, the complete loss of the Shoshone Call in its analysis of cumulative impacts or other impacts to future river-flow scenarios. The impacts and implications from a loss or reduction of the Shoshone Call must be addressed prior to the release of the Final EIS for the Moffat Project.</i></p> <p>Response #865-2: The franchise agreement for the Shoshone Call relaxation was renewed in 2007 for 25 years. Denver Water is</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>currently working with water users on the West Slope and discussing potential options for a relaxation of the Shoshone call during droughts. These discussions incorporate the current agreement and other proposals. The degree to which these discussions lead to a permanent agreement is unknown. Therefore, a permanent Shoshone call relaxation of variation of the current agreement is not considered a reasonably foreseeable action because there isn't reasonable certainty as to the likelihood of that action occurring within the same projected time period at the Moffat Project.</p> <p>The Shoshone call reduction per the agreement between Denver Water and Xcel Energy (Shoshone Agreement) is analyzed as a reasonable foreseeable action in DEIS Section 5.3.1 under the subheading, "Reduction of Xcel Energy's Shoshone Power Plant Call." The analysis of the Shoshone call reduction describes the potential frequency and magnitude of hydrologic effects when the call reduction is in place. Denver Water diverted an additional 4,739 AF in 2003 (voluntary call reduction) and 14,141 AF in 2004 (maintenance) due to the relaxation of the Shoshone call in those years. While Denver Water's diversions may increase under a Shoshone call reduction, diversions with or without the Moffat Project would be the same since available storage capacity in Gross Reservoir would not be a limiting factor in dry years when the Shoshone call reduction would be invoked per the Shoshone Agreement. The Shoshone Agreement would provide limited additional water to the Moffat Collection System because Denver Water retains enough water in Williams Fork Reservoir to exchange against out-of-priority diversions in the Moffat Collection System. Modeled streamflows in the Fraser River Basin would remain essentially the same with or without the Shoshone call reduction since Denver Water retains enough water in Williams Fork Reservoir to exchange against out-of-priority diversions in the Moffat Collection System. Modeled streamflows along the Colorado River downstream to the confluence with the Williams Fork River would also be similar with or without a Shoshone</p>


Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>call since diversions at Windy Gap are more often constrained by the instream flow requirements below Windy Gap as opposed to the Shoshone call. Windy Gap did not divert any additional water when the Shoshone call was off in 2004 which is considered typical of Windy Gap benefits during call reductions. While Windy Gap gained more water in 2003 due to the Shoshone call relaxation, the supply available to Windy Gap was higher in 2003 than it would likely be in most years the call is relaxed. Late-season snow increased runoff significantly in 2003 which resulted in a considerably more water available for Windy Gap pumping than would normally be the case when the call is relaxed per the terms of the current agreement.</p> <p>Comment #865-1 (ID 3453): <i>Support for CBRT Member individual comments and concerns Finally, the CBRT is grappling with many water-supply issues and proposals within the Colorado Basin, some for consumptive uses and others for non-consumptive uses. The Roundtable wishes to ensure that the Moffat Project is fully evaluated so that cumulative impacts can be properly determined and mitigation provided. The CBRT supports the more detailed comments submitted individually by its member organizations, such as Summit County, Grand County, the Colorado River District, Trout Unlimited and others. The CRBT requests that the ACOE fully analyzes and addresses each of the issues raised by those member comments as required under Section 102 of the Act. The CBRT recommends that the ACOE follows a suggestion from several members that the Final EIS and Record of Decision process be "open ended" so that full consideration of these three studies can be incorporated into the environmental impact analysis and proper mitigations be devised based on the results. The CBRT is sending these comments to the Colorado Department of Natural Resources, the Metro Basin Roundtable, the South Platte Basin Roundtable and Denver Water. The Bureau of Reclamation will also be copied. We hope that these comments can help to initiate meaningful</i></p>

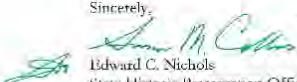
Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>discussions between the Roundtables toward a resolution of not only these issues, but also to promote equitable solutions that provide water to all needs for Colorado's future.</i></p> <p>Response #865-1: A Corps' Section 404 Permit, if issued, will have a condition stating the Corps may reevaluate its decision on the permit at any time circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Failure to comply with the terms and conditions of the permit. • The information provided in support of the permit application proves to have been false, incomplete, or inaccurate. • Significant new information surfaces which the Corps did not consider in reaching the original public interest decision.

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
<p>Comment #1720</p> <p>Susan M. Collins for Edward C. Nichols, State Historic Preservation Officer Office of Archaeological and Historic Preservation 1300 Broadway Denver, CO 80203</p>	 <p>OFFICE of ARCHAEOLOGY and HISTORIC PRESERVATION</p> <p>March 5, 2010</p> <p>Scott Franklin Moffat FEIS Project Manager Corps Denver Regulatory Office 9307 South Wadsworth Blvd. Littleton, CO 80128 6901</p> <p>Re: Comments on Moffat Collection System Project (CHS# 41784)</p> <p>Dear Mr. Franklin:</p> <p>Following our review of the Draft Environmental Impact Statement (DEIS), we offer the following comments:</p> <p><u>DEIS Comments:</u></p> <ul style="list-style-type: none"> • General: Will additional inventory be conducted, either in areas previously surveyed but not revisited/reevaluated in many years, or in areas that have yet to be surveyed (e.g., South Platte River Facilities areas)? • Executive Summary, Page ES-40: Our office believes that the Executive Summary could be improved if it provided a table that demonstrates the number of sites potentially affected by each alternative. • Chapter 3 - Affected Environment, General: Will sites documented during previous inventories be revisited and reevaluated? • Chapter 3 - Affected Environment, Page 3-304 (or globally as applicable): Please change pottery "shards" to "sherds." • Chapter 4 - Environmental Consequences, General: Our office has reviewed the proposed mitigation measures discussed in Tables 4.16-1, 4.16-2, 4.16-3, etc. and find that they provide a good basis to begin further discussions on mitigation measures for this undertaking that may include plans for treatment, monitoring, and discovery. Please note however, as the Programmatic Agreement (PA) and Section 106 consultation have not been finalized/completed, additional/different mitigation measures may be proposed. • Chapter 4 - Environmental Consequences, Page 4-420: The DEIS states that site 5JG4305 will be "permanently destroyed by construction activities, which would constitute a major impact," so we believe it is inappropriate to state that this site would be subject to "temporary impacts." If the Corps means to state that these (permanent) impacts will result from temporary construction, this should be clearly stated. • Chapter 4 - Environmental Consequences, Page 4-420: The PA is among a number of parties and is not only "between the Corps and SHPO." • Chapter 5 - Cumulative Effects, Page 5-53: Has the Corps considered other types of cumulative impacts that may occur to historic properties, such as increased access to site location areas which may lead to intentional vandalism or inadvertent disturbance of historic properties? <p>COLORADO HISTORICAL SOCIETY</p> <p>1300 BROADWAY DENVER, COLORADO 80203 TEL 303/866-3395 FAX 303/866-2711 www.coloradohistory-society.org</p>	<p>Comment #1720-19 (ID 2312): <i>General: Will additional inventory be conducted, either in areas previously surveyed but not revisited/reevaluated in many years, or in areas that have yet to be surveyed (e.g., South Platte River Facilities areas)?</i></p> <p>Response #1720-19: Additional inventories may be performed by the Corps as needed to fulfill the Section 106 requirements.</p> <p>Comment #1720-18 (ID 2311): <i>Executive Summary, Page ES-40: Our office believes that the Executive Summary could be improved if it provided a table that demonstrates the number of sites potentially affected by each alternative.</i></p> <p>Response #1720-18: Per the State Historic Preservation Officer's (SHPO's) request, a table summarizing potential affects to cultural/historic resources for each alternative has been added to the FEIS Executive Summary.</p> <p>Comment #1720-17 (ID 2310): <i>Chapter 3 - Affected Environment, General: Will sites documented during previous inventories be revisited and reevaluated?</i></p> <p>Response #1720-17: Yes, cultural and historic sites documented by previous surveys were re-evaluated for potential impacts resulting from the Moffat Project.</p> <p>Comment #1720-16 (ID 2309): <i>Chapter 3 -Affected Environment, Page 3-304 (or globally as applicable): Please change pottery "shards" to "sherds."</i></p> <p>Response #1720-16: Global revisions replacing "shards" with "sherds" was performed for the FEIS.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p><u>Appendix I. Programmatic Agreement (PA) Comments:</u></p> <ul style="list-style-type: none"> • General: Can the Corps please clarify why a PA was chosen for this project as opposed to a Memorandum of Agreement (MOA) to mitigate the adverse effect resulting from the proposed project? Following our review of the draft PA, it appears that the language does not differ substantially from the standard Section 106 process. A PA is typically appropriate when "circumstances warrant a departure from the normal section 106 process" [36 CFR 800.14(b)(v)]. • General: Has consultation with the Tribes indicated that they are amenable to being "Concurring Parties" on this proposed PA or would the Tribes prefer to be Signatories to this or a separate PA? • General: Throughout the document, timelines should be clarified to indicate calendar or business days. • Whereas clauses: We recommend that a Whereas clause be added to specify the roles and responsibilities of each agency involved. Specifically, the responsibilities of Denver Water should be explained more clearly. • Identification, B.2.: Please clarify the circumstances in which the draft inventory report and site forms will be submitted to the Corps and SHPO. This section indicates that this will be done "if needed." Who decides this? Also, we recommend clarifying that the inventory report and site forms will meet OAHIP guidelines and utilize OAHIP site forms. • Identification, B.2.: We recommend stating "30 calendar days from receipt by the SHPO" in the final sentence. • Identification, B.2.: We recommend stating "no comment" instead of "concurrence" in the final sentence. • Qualifications, F.2.: We recommend that this section clarify how Denver Water will ensure this stipulation. Specifically, how and when these trainings/information sessions will be provided to personnel. • Monitoring and Annual Report: We recommend stating the following, "Failure to submit the annual monitoring report to the Agencies and Tribes each calendar year may result in the termination of this agreement." • Time Frames, G.1.: We recommend stating "30 calendar days from receipt by the SHPO" in the final sentence. • Time Frames, G.1.: We recommend stating "no comment" instead of "concurrence" in the final sentence. <p>We look forward to further consultation regarding the development of this PA with the Corps and other agencies regarding this project. Thank you for the opportunity to comment. If we may be of further assistance, please contact Shina duYall, Section 106 Compliance Manager, at (303) 866-4674 or shina.duyall@ch.s.state.co.us.</p> <p>Sincerely,</p>  <p>Edward C. Nichols State Historic Preservation Officer ECN/SAD</p>	<p>Comment #1720-15 (ID 2308): <i>Chapter 4 - Environmental Consequences, General: Our office has reviewed the proposed mitigation measures discussed in Tables 4.16-1, 4.16-2, 4.16-3, etc. and find that they provide a good basis to begin further discussions on mitigation measures for this undertaking that may include plans for treatment, monitoring, and discovery. Please note however, as the Programmatic Agreement (PA) and Section 106 consultation have not been finalized/completed, additional/different mitigation measures may be proposed.</i></p> <p>Response #1720-15: Comment noted. The Corps looks forward to continued discussions of potential mitigation measures with SHPO.</p> <p>Comment #1720-14 (ID 2307): <i>Chapter 4 - Environmental Consequences, Page 4-420: The DEIS states that site 5JF4305 will be "permanently destroyed by construction activities, which would constitute a major impact," so we believe it is inappropriate to state that &ls site would be subject to "temporary impacts." If the Corps means to state that these (permanent) impacts will result from temporary construction, this should be clearly stated.</i></p> <p>Response #1720-14: FEIS Section 5.18 has been revised to clarify construction impacts at Site 5JF4305.</p> <p>Comment #1720-13 (ID 2306): <i>Chapter 4 - Environmental Consequences, Page 4-420: The PA is among a number of parties and is not only "between the Corps and SHPO."</i></p> <p>Response #1720-13: FEIS Section 5.18 has been revised to reflect the signatory and concurring parties participating in the PA.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Comment #1720-12 (ID 2305): <i>Chapter 5 - Cumulative Effects, Page 5-53: Has the Corps considered other types of cumulative impacts that may occur to historic properties, such as increased access to site location areas which may lead to intentional vandalism or inadvertent disturbance of historic properties?</i></p> <p>Response #1720-12: The Corps assessed cumulative impacts to cultural and historic resources in DEIS Section 5.6.16 and FEIS Section 4.6.18. Shoreline access to recreational areas that currently exist at Gross Reservoir would remain the same for the Project. That is, all recreational facilities would be replaced in-kind for an enlarged reservoir under the Project. Therefore, the increased potential for vandalism associated with increased site access was not considered in the cumulative effects analysis.</p> <p>Comment #1720-11 (ID 2304): <i>General: Can the Corps please clarify why a PA was chosen for this project as opposed to a Memorandum of Agreement (MOA) to mitigate the adverse effect resulting from the proposed project? Following our review of the draft PA, it appears that the language does not differ substantially from the standard Section 106 process. A PA is typically appropriate when "circumstances warrant a departure from the normal section 106 process" [36 CFR 800.14(b) (v)].</i></p> <p>Response #1720-11: A Programmatic Agreement (PA) was selected for the Project because the Corps felt that not all of the Section 106 process requirements could be reasonably concluded by the issuance of a Record of Decision (ROD). Therefore, a PA was identified as the best mechanism to manage the Corps Section 106 obligations.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Comment #1720-10 (ID 2303): <i>General: Has consultation with the Tribes indicated that they are amendable to being "Concurring Parties" on this proposed PA or would the Tribes prefer to be Signatories to this or a separate PA?</i></p> <p>Response #1720-10: The Corps sent letters to the tribes requesting their input on the Draft PA, which included the following statement: "...the Northern Arapahoe Tribe, Northern Cheyenne Tribe, Arapahoe and Cheyenne Tribes of Oklahoma, the Southern Ute Tribe, and Ute Mountain Tribe are invited to concur in this agreement." The Northern Cheyenne Tribe was the only tribe that responded to the PA stating, "No comment." Based on the tribes' lack of response to the solicitation of input on the PA, the tribes will serve as Concurring Parties on the PA. Please refer to FEIS Sections 3.18.0 and 6.2.1 for discussions of the coordination performed with the Native American Tribes for the Moffat Project.</p> <p>Comment #1720-9 (ID 2302): <i>General: Throughout the document, timelines should be clarified to indicate calendar or business days.</i></p> <p>Response #1720-9: The PA in FEIS Appendix L was revised per SHPO's comment.</p> <p>Comment #1720-8 (ID 2301): <i>Whereas clauses: We recommend that a Whereas clause be added to specify the roles and responsibilities of each agency involved. Specifically, the responsibilities of Denver Water should be explained more clearly.</i></p> <p>Response #1720-8: The PA in FEIS Appendix L was revised per SHPO's comment.</p>

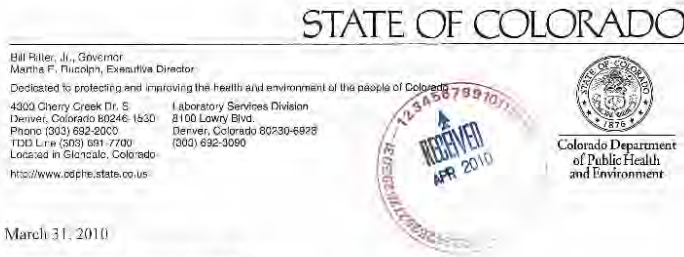
Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Comment #1720-7 (ID 2300): <i>Identification, B.2.: Please clarify the circumstances in which the draft inventory report and site forms will be submitted to the Corps and SHPO. This section indicates that this d be done "if needed." Who decides this? Also, we recommend clarifying that the inventory report and site forms will meet OAHF guidelines and utilize OAHF site forms.</i></p> <p>Response #1720-7: The PA in FEIS Appendix L was revised per SHPO's comment.</p> <p>Comment #1720-6 (ID 2299): <i>Identification, B.2.: We recommend stating "30 calendar days from receipt by the SHPO" in the final sentence.</i></p> <p>Response #1720-6: The PA in FEIS Appendix L was revised per SHPO's comment.</p> <p>Comment #1720-5 (ID 2298): <i>Identification, B.2.: We recommend stating "no comment" instead of "concurrence" in the final sentence.</i></p> <p>Response #1720-5: The PA in FEIS Appendix L was revised per SHPO's comment.</p> <p>Comment #1720-4 (ID 2297): <i>Qualifications, E.2.: We recommend that this section clarify how Denver Water will ensure this stipulation. Specifically, how and when these trainings/ information sessions will be provided to personnel.</i></p> <p>Response #1720-4: The PA in FEIS Appendix L was revised per SHPO's comment.</p>

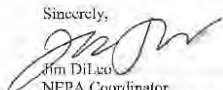
Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Comment #1720-3 (ID 2296): <i>Monitoring and Annual Report: We recommend stating the following, "Failure to submit the annual monitoring report to the Agencies and Tribes each calendar year may result in the termination of this agreement."</i></p> <p>Response #1720-3: The PA in FEIS Appendix L was revised per SHPO's comment.</p> <p>Comment #1720-2 (ID 2295): <i>Time Frames, G.1.: We recommend stating "30 calendar days from receipt by the SHPO" in the final sentence.</i></p> <p>Response #1720-2: The PA in FEIS Appendix L was revised per SHPO's comment.</p> <p>Comment #1720-1 (ID 2294): <i>Time Frames, G.1.: We recommend stating "no comment" instead of "concurrence" in the final sentence. We look forward to further consultation regarding the development of h s PA with the Corps and other agencies regarding this project. Thank you for the opportunity to comment. If we may be of further assistance, please contact Shina duVall, Section 106 Compliance Manager, at (303) 866,4674 or shina.duvall@chs.state.co.us.</i></p> <p>Response #1720-1: The PA in FEIS Appendix L was revised per SHPO's comment.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
<p>Comment #1766 Jim DiLeo, NEPA Coordinator, Air Pollution Control Division Colorado Department of Public Health and Environment 4300 Cherry Creek Drive South Denver, CO 80246</p>	<div style="text-align: center;">  </div> <p>March 31, 2010</p> <p>Martha S. Chieply, Regulatory Chief Omaha District, U.S. Army Corps of Engineers 315 North 17th Street Omaha, Nebraska 68102</p> <p>RE: Moffat Collection System Project, Draft Environmental Impact Statement, Air Quality Comments</p> <p>Dear Ms. Chieply:</p> <p>The Air Pollution Control Division (APCD) of the Colorado Department of Public Health and Environment, in accordance with this agency's Clean Air Act, 42 U.S.C. Title I and Title II and National Environmental Protection Act (NEPA) responsibilities, has reviewed the air quality impact analysis and NEPA disclosures prepared by your office for the Moffat Collection System Project.</p> <p>Under NEPA requirements, the DEIS evaluates five action alternatives plus the No Action Alternative. The air quality analyses of carbon monoxide (CO), oxides of nitrogen (NO_x), particulates (PM₁₀ and PM_{2.5}) emissions generated from heavy-duty diesel construction vehicle exhaust, exhaust emissions from worker's vehicles and delivery vehicles and from fugitive dust emissions demonstrate that in several alternatives these emissions are greater than the conformity <i>de minimis</i> level of 100 tons per year. As such, a general conformity analysis on the action alternatives is required to ensure compliance with Nation Ambient Air Quality Standards (NAAQS). The analysis should review all construction emissions and develop an emissions inventory to ensure that these emissions do not exceed the State Implementation Plan NO_x, CO and particulate emissions budgets established under the APCD State Implementation Plans for attainment and maintenance of the NAAQS.</p> <p>The air quality analysis proposed in the DEIS fails to mention an examination of MSATs from the project. The Environmental Protection Agency regulates air toxics that originate from on-road, non-road mobile and other sources. The DEIS should address MSAT emissions from benzene, formaldehyde, butadiene, acetaldehyde, and diesel exhaust. The APCD is available to provide particulate emission factors for both on-road and non-road MSATs emissions analysis. Please contact Mr. Dale Wells at 303-692-3237 for emission factor assistance.</p> <p>Under the Air Quality Control Commissions' Regulation No. 3, the proponent of this project will be required to obtain a permit from the APCD for release and mitigation of particulate (fugitive) dust</p>	<p>Comment #1766-2 (ID 4457): <i>The Air Pollution Control Division (APCD) of the Colorado Department of Public Health and Environment, in accordance with this agency's Clean Air Act, 42 U.S.C. Title I and Title II and National Environmental Protection Act (NEPA) responsibilities, has reviewed the air quality impact analysis and NEPA disclosures prepared by your office for the Moffat Collection System Project.</i></p> <p>Response #1766-2: The Corps notes the comment.</p> <p>Comment #1766-8 (ID 4456): <i>Under NEPA requirements, the DEIS evaluates five action alternatives plus the No Action Alternative. The air quality analyses of carbon monoxide (CO), oxides of nitrogen (NO_x), particulates (PM₁₀ and PM_{2.5}) emissions generated from heavy-duty diesel construction vehicle exhaust, exhaust emissions from worker's vehicles and delivery vehicles and from fugitive dust emissions demonstrate that in several alternatives these emissions are greater than the conformity <i>de minimis</i> level of 100 tons per year. As such, a general conformity analysis on the action alternatives is required to ensure compliance with Nation Ambient Air Quality Standards (NAAQS). The analysis should review all construction, emissions and develop an emissions inventory to ensure that these emissions do not exceed the State Implementation Plan NO_x, CO and particulate emissions budgets established under the APCD State Implementation Plans for attainment and maintenance of the NAAQS.</i></p> <p>Response #1766-8: The Corps has reviewed EPA's General Conformity rule and guidance for that rule (including changes promulgated after April 5, 2010 – 75 Federal Register [FR] 17254) and guidance available on EPA's website (http://www.epa.gov/air/genconform/faq.html). Within that guidance, there are a couple of references to the relationship of the General Conformity rule to NEPA (EPA</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>emission from the project, as its area exceeds 25 acres and the project duration will be longer than six months. This permit must include a fugitive dust control plan that lists control or mitigation measures that will be employed to minimize fugitive dust emissions from the project. In addition, a permit and mitigation plan for the concrete batch plant emissions must be obtained from the APCD for this project. Please contact Mr. Chip Hancock at 303-692-3127 for questions on Regulation No. 3 permitting.</p> <p>The Moffat Collection System Project is located in a maintenance/non-attainment area for particulate and ozone pollution. The APCD recommends near field air impact modeling for the duration of the project. In addition, The APCD recommends that the project proponent consider establishing a particulate monitoring site within the project boundaries, to monitor compliance with the NAAQS for particulates in this maintenance/attainment area. The monitor should be sited using EPA Method 2.11 and CTR 40 Part 58 protocol. Please contact Ms. Nancy Chick at 303-692-3226 for information on the type of monitor and monitoring protocol to be used for this project.</p> <p>Within Chapter Four of the DEIS, the statement "Most construction equipment exhaust emissions are conservatively based on Tier I emissions factors..." is made. Please explain how this statement satisfies the requirement that Tier II standards that begin in 2010 for new construction equipment will be applied to equipment used for the project.</p> <p>The APCD strongly suggests that the DEIS examine alternative modes of transportation, such as rail transport instead of truck transport, for the delivery of off-site bulk hauling of construction materials. The use of railroad hauling of these materials could improve energy consumption, reduce project air pollution emissions, improve construction-related traffic delays and reduce safety hazards in the Highway 72 corridor.</p> <p>Thank you for your consideration of the APCD's input on this project DEIS. Should you have any questions or concerns or require a meeting with this agency, please contact me at 303-692-3127 or at jim.dileo@state.co.us.</p> <p>Sincerely,  Jim Dileo NEPA Coordinator Air Pollution Control Division</p> <p>cc: Scott Franklin, Moffat EIS Project Manager, US Army Corps of Engineers Melanie Wasco, EPA Jim Hanley, EPA</p> <p style="text-align: center;">2</p>	<p>1994). The 1994 document addresses the timing of the General Conformity process: "...at the point in the NEPA process when the specific action is determined, the air quality analyses for conformity should be done." The Corps has not yet determined the "specific action" for the Moffat Project and will not do so until the ROD associated with a Section 404 Permit is issued.</p> <p>The Corps understands that because the average annual emissions of oxides of nitrogen and carbon monoxide would each exceed 100 tons per year for each alternative, a conformity analysis, as discussed in FEIS Sections 3.13.4 and 5.13.8, would need to be conducted. The general conformity process would ensure that construction emissions would not cause exceedances of the National Ambient Air Quality Standards (NAAQS). Denver Water would work with the Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD) to demonstrate conformity to ensure that the Project alternative that is permitted does not impair State and local efforts to improve or maintain air quality. Note that the Proposed Action emissions are the lowest of any of the alternatives. A Corps' Section 404 Permit, if issued for one of the Moffat EIS alternatives, will require that construction activities conform to Colorado State Air Quality standards.</p> <p>Comment #1766-5 (ID 4455): <i>The air quality analysis proposed in the DEIS fails to mention an examination of MSATs from the project. The Environmental Protection Agency regulates air toxics that originate from on-road, non-road mobile and other sources. The DEIS should address MSAT emissions from benzene, formaldehyde, butadiene, acetaldehyde, and diesel exhaust. The APCD is available to provide particulate emission factors for both on-road and non-road MSATs emissions analysis. Please contact Mr. Dale Wells at 303-692-3237 for emission factor assistance.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Response #1766-5: Hazardous air pollutant emissions (1,3-butadiene, acetaldehyde, benzene, formaldehyde, and toluene) from the Project have been estimated and incorporated in the summary tables of construction emissions presented in FEIS Section 5.13. The calculations include on-road exhaust emissions from worker commuter vehicles, delivery trucks, and other Project construction equipment. Detailed emission spreadsheets and references are presented in FEIS Appendix I.</p> <p>Comment #1766-6 (ID 4454): <i>Under the Air Quality Control Commissions' Regulation No. 3, the proponent of this project will be required to obtain a permit from the APCD for release and mitigation of particulate (fugitive) dust emission from the project, as its area exceeds 25 acres and the project duration will be longer than six months. This permit must include a fugitive dust control plan that lists control or mitigation measures that will be employed to minimize fugitive dust emissions from the project. In addition, a permit and mitigation plan for the concrete batch plant emissions must be obtained from the APCD for this project. Please contact Mr. Chip Hancock at 303-692-3 127 for questions on Regulation No. 3 permitting.</i></p> <p>Response #1766-6: Particulate matter emissions from the concrete batch plant have been estimated and have been added to FEIS Section 5.13. FEIS Section 5.13.7 discusses the land development permit and fugitive dust control plan. This section has been revised as follows to include the potential permit requirement for the concrete batch plant: "The concrete batch plant would require a CDPHE APCD air quality permit, if emissions exceed the permitting threshold of five tons per year of actual particulate matter less than 10 microns in diameter (PM₁₀) emissions. Control measures to limit the particulate emissions would be imposed as a condition of the permit." FEIS Table 1-5 (in Chapter 1) lists the potential permit requirements for</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>the Project, which was revised to include the air quality permit.</p> <p>Comment #1766-7 (ID 4453): <i>The Moffat Collection System Project is located in a maintenance/non-attainment area for particulate and ozone pollution. The APCD recommends near field air impact modeling for the duration of the project. In addition, The APCD recommends that the project proponent consider establishing a particulate monitoring site within the project boundaries, to monitor compliance with the NAAQS for particulates in this maintenance/attainment area. The monitor should be sited using EPA Method 2.11 and CFR 40 Part 58 protocol. Please contact Ms. Nancy Chick at 303-692-3226 for information on the type of monitor and monitoring protocol to be used for this project.</i></p> <p>Response #1766-7: Particulate monitoring would not be a requirement under the Clean Air Act for the Project. The particulate matter air emissions in the Gross Reservoir area for the Proposed Action are estimated to be 77 tons per year of PM₁₀ and 19 tons per year of particulate matter less than 2.5 microns in diameter (PM_{2.5}). Given this level of emissions, and considering other aspects of the Project (e.g., the difficulty of appropriate monitor siting in such a large area to ensure representative air samples), ambient monitoring for compliance with the PM₁₀ and PM_{2.5} NAAQS is not warranted.</p> <p>Comment #1766-4 (ID 4452): <i>Within Chapter Four of the DEIS, the statement "Most construction equipment exhaust emissions are conservatively based on Tier 1 emissions factors.. ." is made. Please explain how this statement satisfies the requirement that Tier I1 standards that begin in 201 0 for new construction equipment will be applied to equipment used for the project.</i></p>


Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Response #1766-4: The EIS estimates of construction emissions are based on the highest possible emission factors to provide a “worst case” of potential air emissions. The Project construction equipment fleet may include some older, Tier 1 engines. Therefore, the Tier 1 emission factors were used in the calculations for all engines. Newer engines used for the Project would comply with the appropriate Tier 2 or Tier 3 standards, so that the Project emissions as estimated would be higher than actual emissions of a mixed-age engine fleet.</p> <p>Comment #1766-3 (ID 4451): <i>The APCD strongly suggests that the DEIS examine alternative modes of transportation, such as rail transport instead of truck transport, for the delivery of off-site bulk hauling of construction materials. The use of railroad hauling of these materials could improve energy consumption, reduce project air pollution emissions, improve construction-related traffic delays and reduce safety hazards in the Highway 72 corridor.</i></p> <p>Response #1766-3: Denver Water hired an independent consultant to evaluate using the railroad to transport material to the site. The consultant found that using the railroad would not be feasible for the Project because it would be too expensive and would cause too many scheduling problems with the railroad company. The consultant found that if Denver Water were to use the existing railroad siding to unload material, trains would need to be diverted or delayed, causing problems for the railroad company. If Denver Water were to construct a new siding to unload material, it would require a tremendous amount of material to be hauled in (likely using trucks), would cost about \$20 million and would disrupt train schedules.</p> <p>Denver Water is evaluating alternatives for reducing construction traffic delays, including constructing and/or improving turnouts on State Highway (SH) 72 for slow-</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>moving traffic.</p> <p>Comment #1766-1 (ID 4450): <i>Thank you for your consideration of the APCD's input on this project DEIS. Should you have any questions or concerns or require a meeting with this agency, please contact me.</i></p> <p>Response #1766-1: The Corps notes the comment.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
<p>Comment #1769 James B. Martin, Executive Director Colorado Department of Natural Resources 1313 Sherman Street, Room 718 Denver, CO 80203</p>	<div style="text-align: center;">  </div> <p>Thank you for the opportunity to comment on the Section 404 permit application and Draft Environmental Impact Statement (DEIS) for the Moffat Collection System Project (Moffat Project), proposed by the City and County of Denver Board of Water Commissioners (Denver Water). The following comments have been submitted from the Colorado Department of Natural Resources (DNR) and its Divisions. These Divisions include the Colorado Water Conservation Board (CWCB), the Division of Water Resources (DWR) and the Division of Wildlife (DOW).</p> <p><u>Colorado Water Conservation Board</u></p> <p><u>Colorado's Water Supply Planning Process</u></p> <p>Colorado has a robust water supply planning process based on local basin planning. In 2003, because of Colorado's population increase, the 2002 drought, and potential water shortage issues, the Colorado General Assembly authorized CWCB to implement the Statewide Water Supply Initiative (SWSI). Senate Bill 03-110 authorized SWSI which implemented a collaborative approach to helping Colorado maintain an adequate water supply for its citizens and the environment. SWSI focused on using a common technical basis for identifying and quantifying water needs and issues throughout the state. SWSI formed the basis of Colorado's current water supply planning process. In 2005, the Colorado General Assembly formalized this statewide water supply planning process through the Colorado Water for the 21st Century Act (C.R.S. 37-75-101 to -107). The Colorado Water for the 21st Century Act, now known as the Basin Roundtable Process, provides a permanent forum for basin level water supply planning. It incorporates and extends SWSI by creating 9 Basin Roundtables based on Colorado's eight major river basins and a separate roundtable for Denver Metro area.</p> <p>Each Basin Roundtable is charged with developing a basin-wide water needs assessment by analyzing their consumptive (M&I and agricultural) water needs, analyzing their nonconsumptive (environmental and recreational) water needs, analyzing available water supplies, and proposing projects and methods to meet their identified water needs. The Basin Roundtables are in the process of developing their needs assessments with technical assistance from CWCB.</p>	<p>Comment #1769-5 (ID 4498): <i>Thank you for the opportunity to comment on the Section 404 permit application and Draft Environmental Impact Statement (DEIS) for the Moffat Collection System Project (Moffat Project), proposed by the City and County of Denver Board of Water Commissioners (Denver Water). The following comments have been submitted from the Colorado Department of Natural Resources (DNR) and its Divisions. These Divisions include the Colorado Water Conservation Board (CWCB), the Division of Water Resources (DWR) and the Division of Wildlife (DOW).</i></p> <p>Response #1769-5: The Corps notes the comment.</p> <p>Comment #1769-6 (ID 4497): <i>Colorado Water Conservation Board Colorado's Water Supply Planning Process Colorado has a robust water supply planning process based on local basin planning. In 2003, because of Colorado's population increase, the 2002 drought, and potential water shortage issues, the Colorado General Assembly authorized CWCB to implement the Statewide Water Supply Initiative (SWSI). Senate Bill 03-1 10 authorized SWSI which implemented a collaborative approach to helping Colorado maintain an adequate water supply for its citizens and the environment. SWSI focused on using a common technical basis for identifying and quantifying water needs and issues throughout the state. SWSI formed the basis of Colorado's current water supply planning process. In 2005, the Colorado General Assembly formalized this statewide water supply planning process through the Colorado Water for the 21st Century Act (C.R.S. 37-75-101 to - 107). The Colorado Water for the 21st Century Act, now known as the Basin Roundtable Process, provides a permanent forum for basin level water supply planning. It incorporates and extends SWSI by creating 9 Basin Roundtables based on Colorado's eight major river basins and a separate roundtable for Denver Metro area. Each Basin Roundtable is charged with developing a basin-wide water needs assessment by analyzing their consumptive (M&I and agricultural) water needs,</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p><u>Recent Findings</u></p> <p>SWSI found that by 2030 Colorado will need an additional 630,000 a.f. of municipal and industrial (M&I) water. About 80% of this could be met through the successful implementation of projects and planning processes that the local water providers are currently pursuing, also called Identified Projects and Processes or IPPs. SWSI also found even if the IPPs are 100% successful there would still be a 20% "gap." To the extent that the IPPs are not successful the "gap" is larger. SWSI also found that to the extent the IPPs are not successfully implemented, Colorado will see a significantly greater reduction in irrigate agricultural lands as M&I water providers seek additional permanent transfers of agricultural water rights to provide for the demands that would otherwise have been met by specific IPPs.</p> <p>Upon completion of SWSI the Colorado Water Conservation Board recognized the importance of successfully implementing the IPPs. They adopted the mission statement to "Track and Support Water Supply Projects and Planning Processes."</p> <p>2050 M&I Water Use Projections and Updated Information from SWSI</p> <p>To help the Basin Roundtables with their needs assessments, CWCB projected M&I water needs out to 2050. Because of the uncertainty associated with long-range projections, CWCB projected these demands using a range. The Basin Roundtable now have draft low, medium, and high population projections and M&I water use projections (including energy needs and oil shale). The draft results of this analysis include:</p> <ul style="list-style-type: none"> • Because of Colorado's strong and diversified economy Colorado's population will approximately double from 5 million to 10 million people by 2050. By 2050 Colorado's population is projected to be between 8.6 and 10.3 million people in 2050¹. <ul style="list-style-type: none"> o About half of this population growth is expected to be due to net migration into the state and about half due to birth rates higher than death rates o On a percentage basis, the fastest growth will take place on the west slope – Between 2005 and 2050 the Colorado Basin will grow by about 150%, the Southwest by about 125%, and the Gunnison by about 140%. o The Arkansas and South Platte Basins will have slower growth rates (about 90% and 80% respectively), but combine to add almost 3.7 million people by 2050. o By 2050, between 5.8 and 6.8 million people will live in the South Platte Basin. This is an increase of 2.5 to 3.5 million people from the basin's 2005 population of 3.3 million. o Within the South Platte Basin, this population will be concentrated in the Denver Metro Area. The 8 largest counties are projected to be: <ul style="list-style-type: none"> ▪ Denver – 809,000 to 948,000 ▪ Arapahoe – 948,000 to 1.1 million ▪ Adams – 824,000 to 966,000 ▪ Jefferson – 739,000 to 866,000 ▪ Douglas – 591,000 to 693,000 <p><small>¹ Should the recent recession and economic down turn persist, Colorado's population will be closer to 8.6 million. However, should the national recession subside, Colorado's population will be on the middle to higher end of this range.</small></p>	<p><i>analyzing their non-consumptive (environmental and recreational) water needs, analyzing available water supplies, and proposing projects and methods to meet their identified water needs. The Basin Roundtables are in the process of developing their needs assessments with technical assistance from CWCB. Recent Findings SWSI found that by 2030 Colorado will need an additional 630,000 a.f. of municipal and industrial (M&I) water. About 80% of this could be met through the successful implementation of projects and planning processes that the local water providers are currently pursuing, also called Identified Projects and Processes or IPPs. SWSI also found even if the IPPs are 100% successful there would still be a 20% "gap." To the extent that the IPPs are not successful the "gap" is larger. SWSI also found that to the extent the IPPs are not successfully implemented, Colorado will see a significantly greater reduction in irrigate agricultural lands as M&I water providers seek additional permanent transfers of agricultural water rights to provide for the demands that would otherwise have been met by specific IPPs. Upon completion of SWSI the Colorado Water Conservation Board recognized the importance of successfully implementing the IPPs. They adopted the mission statement to "Track and Support Water Supply Projects and Planning Processes." 2050 M&I Water Use Projections and Updated Information from SWSI To help the Basin Roundtables with their needs assessments, CWCB projected M&I water needs out to 2050. Because of the uncertainty associated with long-range projections, CWCB projected these demands using a range. The Basin Roundtable now have draft low, medium, and high population projections and M&I water use projections (including energy needs and oil shale). The draft results of this analysis include: Because of Colorado's strong and diversified economy Colorado's population will approximately double from 5 million to 10 million people by 2050. By 2050 Colorado's population is projected to be between 8.6 and 10.3 million people in 2050[1]. [FOOTNOTE Should the recent recession and economic down turn persist, Colorado's population will be closer to 8.6 million. However, should the national recession subside, Colorado's population will be on the</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<ul style="list-style-type: none"> This population growth will drive a significant need for additional water to meet future M&I demands. By 2050 Colorado will need between 830,000 and 1.7 million a.f. of additional water to meet M&I needs. This range includes an estimate of between 50,000 and 400,000 a.f. of new water supply for energy development (the largest component of which is oil shale development). However, even without self-supplied energy development Colorado will need between 765,000 and 1.15 million a.f. of additional water for municipal, commercial, and small industrial use. The South Platte and Denver Metro area is projected to need between 375,700 and 548,300 a.f. of additional M&I water. CWCB projects water demands at the county level, but does not disaggregate these demands to water provider level. The counties that include a portion of Denver Water's combined service area will need the following additional M&I water by 2050²: <ul style="list-style-type: none"> Denver - 39,200 to 64,600 a.f. Arapahoe - 75,700 to 107,900 a.f. Adams - 66,500 to 91,300 a.f. Jefferson - 33,800 to 56,400 a.f. Douglas - 53,600 to 70,900 a.f. <p>It is important to note that these results in are draft and are currently being refined with input from local water providers and other water stakeholders. However, they give an indication of the M&I water supply challenges facing Colorado and the Denver Metro area.</p> <p>Identified Projects and Processes</p> <p>Colorado's water supply planning process has concluded that meeting our state's water supply needs will require a mix of successful IPPs, additional conservation, agricultural transfers, and new water supply development. There is no "silver bullet" solution for our future water needs, and relying solely on any one strategy will not have a favorable result. Even with the successful implementation of the IPPs, Colorado will have a water supply "gap." Additionally, Colorado will not be able to meet all of its future water supply needs through conservation alone, nor should Colorado rely solely on one or two large water projects.</p> <p>A significant portion of Colorado's future needs will be met with the implementation of projects and planning processes that the local water providers are currently pursuing (IPP's). If all of these projects are successful, Colorado will not have an M&I water supply "gap" until around 2020. If, however, these projects are only partially successful, Colorado's "gap" will be bigger and will appear sooner.</p> <p>If successfully implemented, the IPP's in the South Platte Basin and Denver Metro Area that are currently in the NLEPA process could yield an average of about 113,000 a.f. These projects include:</p> <ul style="list-style-type: none"> Moffat Collection System Improvement - 18,000 a.f.³ Windy Gap Farming - 30,000 a.f.⁴ <p>² These are base-line demands that include conservation savings achieved to date, but do not include future conservation savings.</p> <p>³ An estimated firm-yield based on 1950-1991 hydrology.</p> <p>⁴ An estimated firm-yield basis based on 1950-1996 hydrology.</p>	<p><i>middle to higher end of this range.] About half of this population growth is expected to be due to net migration into the state and about half due to birth rates higher than death rates On a percentage basis, the fastest growth will take place on the west slope - Between 2005 and 2050 the Colorado Basin will grow by about 150%, the Southwest by about 125%, and the Gunnison by about 140%. The Arkansas and South Platte Basins will have slower growth rates (about 90% and 80% respectively), but combine to add almost 3.7 million people by 2050. By 2050, between 5.8 and 6.8 million people will live in the South Platte Basin. This is an increase of 2.5 to 3.5 million people from the basin's 2005 population 3.3 million. Within the South Platte Basin, this population will be concentrated in the Denver Metro Area. The 8 largest counties are projected to be: Denver - 809,000 to 948,000 Arapahoe - 948,000 to 1.1 million Adams - 824,000 to 966,000 Jefferson - 739,000 to 866,000 Douglas - 591,000 to 693,000 This population growth will drive a significant need for additional water to meet future M&I demands. By 2050 Colorado will need between 830,000 and 1.7 million a.f. of additional water to meet M&I needs. This range includes an estimate of between 50,000 and 400,000 a.f. of new water supply for energy development (the largest component of which is oil shale development). However, even without self-supplied energy development Colorado will need between 765,000 and 1.15 million a.f. of additional water for municipal, commercial, and small industrial use. The South Platte and Denver Metro area is projected to need between 375,700 and 548,300 a.f. of additional M&I water. CWCB projects water demands at the county level, but does not disaggregate these demands to water provider level. The counties that include a portion of Denver Water's combined service area will need the following additional M&I water by 2050[2]: Denver - 39,200 to 64,600 a.f. Arapahoe - 75,700 to 107,900 a.f. Adams - 66,500 to 91,300 a.f. Jefferson - 33,800 to 56,400 a.f. Douglas - 53,600 to 70,900 a.f. [FOOTNOTE These are base-line demands that include conservation savings achieved to date, but do not include future conservation savings.] It is important to note that these results in are draft and are currently being refined</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<ul style="list-style-type: none"> ▪ Northern Integrated Supply Project (NISP) – 40,000 a.f.⁵ ▪ Halligan-Seaman Reservoir Enlargements – 17,000 a.f.⁶ ▪ Chatfield Reservoir Storage Reallocation – 8,000 a.f.⁷ <p>The South Platte and Denver Metro area is projected to need between 375,700 and 548,300 a.f. of additional M&I water by 2050. This 113,000 a.f. of new water supply development will only meet a portion of that need. The remainder will be met through conservation efforts, local agricultural water transfers, and potential new water supply development projects above and beyond the IPPs. To the extent that water projects developed by local water providers do not move forward, different water projects will need to be considered. Colorado through the IBCC and CWCB has analyzed different water projects. These include:</p> <ul style="list-style-type: none"> ▪ Lower South Platte Pumpback ▪ Lower Arkansas Pumpback ▪ Green Mountain Pumpback ▪ Yampa Pumpback ▪ Flaming Gorge Pipeline <p>To the extent the IPPs fail, these types of projects may be needed sooner and in larger configurations.</p> <p>The CWCB is also working with the IBCC and Basin Roundtables to develop “portfolios” or combinations of strategies for meeting Colorado’s water supply needs. We have developed a “status quo” portfolio. It assumes that many of the IPPs will not be successfully implemented; that conservation practices will result in a 20 percent reduction from 2000 water usage rates; and that there will be little additional development of Colorado River Water. This status quo portfolio would lead to dry-up of 44% of the South Platte Basin’s irrigated lands and 28% of the Arkansas. CWCB and many water stakeholders throughout the state are concerned that this level of agricultural dry-up will have detrimental impacts to Colorado’s economic diversity, cultural heritage, rural economies, and wetlands/riparian habitat.</p> <p>The CWCB and the IBCC is in the process of developing alternative scenarios under low, medium and high supply and demand futures. The goal is to develop alternative portfolios that use a combination of conservation, reuse, agricultural transfers, and new supply projects that have the least impact to agriculture, environmental, recreational, fiscal, and other values identified by the Interbasin Compact Committee, CWCB, and Basin Roundtables while still meeting the state’s projected needs. In each of these scenarios, the success of IPPs is a major factor in minimizing the overall impact of the necessary portfolio.</p> <p><u>Colorado’s Compact Allocation</u></p> <p>The State of Colorado is a signatory of the Colorado River Compact of 1922 and the Upper Colorado River Compact of 1948, and the State of Colorado has protected Colorado’s compact entitlements for almost a century of work related to litigation, legislation, and negotiation. The CWCB continues to defend Colorado Compact entitlements to this day, employing two full time</p> <p>⁵ An estimated firm-yield basis based on 1950-1996 hydrology. ⁶ An estimated firm-yield basis based on synthetic hydrology. ⁷ An estimated average annual yield.</p>	<p><i>with input from local water providers and other water stakeholders. However, they give an indication of the M&I water supply challenges facing Colorado and the Denver Metro area. Identified Projects and Processes Colorado’s water supply planning process has concluded that meeting our state’s water supply needs will require a mix of successful IPPs, additional conservation, agricultural transfers, and new water supply development. There is no “silver bullet” solution for our future water needs, and relying solely on any one strategy will not have a favorable result. Even with the successful implementation of the IPPs, Colorado will have a water supply “gap.” Additionally, Colorado will not be able to meet all of its future water supply needs through conservation alone, nor should Colorado rely solely on one or two large water projects. A significant portion of Colorado’s future needs will be met with the implementation of projects and planning processes that the local water providers are currently pursuing (IPP’s). If all of these projects are successful, Colorado will not have an M&I water supply “gap” until around 2020. If, however, these projects are only partially successful, Colorado’s “gap” will be bigger and will appear sooner. If successfully implemented, the IPPs in the South Platte Basin and Denver Metro Area that are currently in the NEPA process could yield an average of about 113,000 a.f. These projects include: Moffat Collection System Improvement - 18,000 a.f.[3] Windy Gap Firming - 30,000 a.f.[4] Northern Integrated Supply Project (NISP) - 40,000 a.f.[5] Halligan-Seaman Reservoir Enlargements - 17,000 a.f.[6] Chatfield Reservoir Storage Reallocation - 8,000 a.f.[7] [FOOTNOTES 3 An estimated firm-yield based on 1950-1991 hydrology. 4 An estimated firm-yield basis based on 1950-1996 hydrology. 5 An estimated firm-yield basis based on 1950-1996 hydrology. 6 An estimated firm-yield basis based on synthetic hydrology. 7 An estimated average annual yield.] The South Platte and Denver Metro area is projected to need between 375,700 and 548,300 a.f. of additional M&I water by 2050. This 113,000 a.f. of new water supply development will only meet a portion of that need. The remainder will be met through conservation efforts, local agricultural water</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>staff people to work on these issues and more recently establishing the Defense of the Colorado River sub-unit within the Colorado Office of the Attorney General. While other States that are party to the compacts within the Colorado River system have fully developed their water allocations, the State of Colorado still has entitlements to water resources under the law of the River. The Moffat Collection System Project has the potential to develop some of Colorado's compact entitlements without building any new cross-continental divide pipelines or ditches but rather depends on existing infrastructure.</p> <p><u>CWCB's Instream Flow and Natural Lake Level Program</u></p> <p>The CWCB is the only entity in the State of Colorado authorized to appropriate instream flow water rights for any purpose. The CWCB also has the authority to acquire water rights for instream flow purposes. The CWCB holds decrees for 1,541 instream flow water rights protecting more than 8,800 miles of stream, and 480 natural lake level water rights. The CWCB has also acquired, via donation, lease or contract, numerous water rights and rights to use water totaling approximately 400 cfs and 9,300 acre-feet of water. The CWCB holds instream flow water rights in many of the streams from which the Moffat Project will divert water, which rights are junior to the Moffat Project water rights. The CWCB also holds instream flow water rights in streams in the Platte River Basin through which the imported water will flow. The Moffat Collection System Project has begun to explore possibility of dedicating some of the water brought from Fraser River system towards instream flow water rights in the South Boulder Creek drainage. While there are no definite plans to use the CWCB's Instream Flow Program as a part of this project or associated mitigation, to the extent that this project will use the Instream Flow Program, the CWCB will be significant involved.</p> <p><u>Conclusions from the Colorado Water Conservation Board</u></p> <p>The Colorado Water Conservation Board does not have a role in permitting water projects and therefore does not evaluate individual water supply projects. The Board's statutory duty is to promote the greatest utilization of water and to work with water providers on the conservation and development of the waters of the state. In addition, Colorado law includes provisions for the CWCB to review and comment on mitigation plans associated with projects requiring federal permitting, and the CWCB will act accordingly.</p> <p>Our basin-wide and state planning efforts indicate that the extent to which local water providers' projects are not successful, the state's overall M&I water supply "gap" is larger. Conservation and agricultural water transfers will be critical in meeting our future water supply needs, but they will not eliminate the need for new water supply development projects. Additional water projects and the development of new water supplies will be needed to meet our citizen's water needs. If it is not the Moffat Collection System Project and other water projects currently in the permitting process then alternative/different water supply projects will need to be found.</p> <p>CWCB is concerned that reasonable projects developed by local water providers will not move forward. CWCB realizes that there will be impacts with water projects. These impacts should be identified, minimized, and mitigated for, rather than looking for reasons to stop each individual project.</p> <p>Colorado is facing a challenging water supply future. If we want to continue to have a robust and diversified economy, we need to implement a combination of conservation, agricultural transfers and new water supply development. All three strategies will be critical in meeting our future needs.</p>	<p><i>transfers, and potential new water supply development projects above and beyond the IPPs. To the extent that water projects developed by local water providers do not move forward, different water projects will need to be considered. Colorado through the IBCC and CWCB has analyzed different water projects. These include: Lower South Platte Pumpback Lower Arkansas Pumpback Green Mountain Pumpback Yampa Pumpback Flaming Gorge Pipeline To the extent the IPPs fail, these types of projects may be needed sooner and in larger configurations. The CWCB is also working with the IBCC and Basin Roundtables to develop "portfolios" or combinations of strategies for meeting Colorado's water supply needs. We have developed a "status quo" portfolio. It assumes that many of the IPPs will not be successfully implemented; that conservation practices will result in a 20 percent reduction from 2000 water usage rates; and that there will be little additional development of Colorado River Water. This status quo portfolio would lead to dry-up of 44% of the South Platte Basin's irrigated lands and 28% of the Arkansas. CWCB and many water stakeholders throughout the state are concerned that this level of agricultural dry-up will have detrimental impacts to Colorado's economic diversity, cultural heritage, rural economies, and wetlands/riparian habitat. The CWCB and the IBCC is in the process of developing alternative scenarios under low, medium and high supply and demand futures. The goal is to develop alternative portfolios that use a combination of conservation, reuse, agricultural transfers, and new supply projects that have the least impact to agriculture, environmental, recreational, fiscal, and other values identified by the Interbasin Compact Committee, CWCB, and Basin Roundtables while still meeting the state's projected needs. In each of these scenarios, the success of IPPs is a major factor in minimizing the overall impact of the necessary portfolio.</i></p> <p>Response #1769-6: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p style="text-align: center;"><u>Colorado Division of Water Resources</u></p> <p>The Colorado Division of Water Resources (DWR) is responsible for the supervision and control of water resources in this State, pursuant to statute. Water administration is the DWR's principal duty, requiring daily oversight of the allocation system that distributes water to farmers, industries, municipalities, and all other water users. This allocation system is performed in accordance with the Doctrine of Prior Appropriation (the first entity to historically use water in a stream retains the first priority to continue diverting water for the same use), Colorado Supreme Court decisions, water court decrees, compact obligations, and rules & regulations issued by the State Engineer.</p> <p>Pursuant to the statutory duty and mission of the DWR, the following comments are offered:</p> <p><u>Water Rights</u></p> <ul style="list-style-type: none"> ▪ Ensure existing water rights and decrees are upheld. ▪ Ensure the DWR is kept informed in decisions made as to enhancement opportunities and agreements made pursuant to and in addition to the Mitigation Plan. <p>It is our understanding that, in addition to mitigating Moffat Project impacts, Denver Water is working with interested parties to offer additional environmental enhancements opportunities to the EIS process. These enhancement opportunities have not yet been made public but may include bypass agreements. As the project progresses, the DWR requests that it be kept informed as to the agreements made pursuant to and in addition to the Mitigation Plan, including any agreements that contemplate bypass water flows. Please be aware that, as noted above, DWR administers water pursuant to court decrees, state statutes, compacts, and properly promulgated rules and regulations. Private bypass flow agreements are not enforced by the DWR.</p> <p><u>Colorado River Compact and Upper Colorado River Basin Compact</u></p> <p>Colorado has two compacts with neighboring States which apportion water of the Colorado River basin for use to each State. The CWCB has addressed the global issues of the Compact in their comments on this EIS, including available capacity under Colorado's entitlement. In the event water administration is required to meet compact obligations, the DWR will perform administration consistent with properly promulgated rules and regulations.</p> <p><u>Colorado Division of Wildlife</u></p> <p>Thank you for the opportunity to provide comments on the manner in which impacts to fish and wildlife resources and fish and wildlife-related recreation are characterized and evaluated in the Draft Environmental Impact Statement for the proposed Moffat Collection System Project (MCSP). These comments generally are confined to the project proponent's proposed action (Alternative 1a), though the Colorado Division of Wildlife (CDOW) encourages the U.S. Army Corps of Engineers (Corps) to use these comments as an indicator of DOW's concerns regarding other alternatives wherever analysis demonstrates that the impacts to fish and wildlife of those alternatives are substantially similar to the impacts of the proposed project. If throughout the course of this process a different alternative, or substantially modified version of, the proposed</p>	<p>Comment #1769-7 (ID 4496): <i>Colorado's Compact Allocation The State of Colorado is a signatory of the Colorado River Compact of 1922 and the Upper Colorado River Compact of 1948, and the State of Colorado has protected Colorado's compact entitlements for almost a century of work related to litigation, legislation, and negotiation. The CWCB continues to defend Colorado Compact entitlements to this day, employing two full time staff people to work on these issues and more recently establishing the Defense of the Colorado River sub-unit within the Colorado Office of the Attorney General. While other States that are party to the compacts within the Colorado River system have fully developed their water allocations, the State of Colorado still has entitlements to water resources under the law of the River. The Moffat Collection System Project has the potential to develop some of Colorado's compact entitlements without building any new cross-continental divide pipelines or ditches but rather depends on existing infrastructure.</i></p> <p>Response #1769-7: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1769-57 (ID 4495): <i>CWCB's Instream Flow and Natural Lake Level Program The CWCB is the only entity in the State of Colorado authorized to appropriate instream flow water rights for any purpose. The CWCB also has the authority to acquire water rights for instream flow purposes. The CWCB holds decrees for 1, 541 instream flow water rights protecting more than 8,800 miles of stream, and 480 natural lake level water rights. The CWCB has also acquired, via donation, lease or contract, numerous water rights and rights to use water totaling approximately 400 cfs and 9,300 acre-feet of water. The CWCB holds instream flow water rights in many of the streams from which the Moffat Project will divert water, which rights are junior to the Moffat Project water rights. The CWCB also holds instream flow water rights in streams in the Platte River</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>action is chosen, CDOW requests the courtesy of additional time to respond to the amended choice of preferred Alternative.</p> <p>The proposed project's potential wildlife and wildlife-related recreation impacts span two distinct geographic regions, the "East Slope" and the "West Slope." Therefore, the following comments are organized according to the manner in which the DEIS characterizes and evaluates wildlife impacts as they relate to these two geographic regions. Further, the following comments or organized to address aquatic or "flow-related" impacts of the proposed project within both regions, as well as terrestrial impacts of the proposed project.</p> <p>These comments are focused predominantly on the manner in which the DEIS characterizes impacts to fish and wildlife resources. They also address CDOW's views on appropriate mitigation measures that should be undertaken to offset the proposed project's otherwise unavoidable impacts to fish and wildlife and fish and wildlife-related recreation, but only in a cursory way. This is due to the fact that, pursuant to the requirements of C.R.S. 37-60-122.2, CDOW and the project proponents have initiated discussions to produce a Fish and Wildlife Mitigation Plan (FWMP). C.R.S. 37-60-122.2 requires such plans to be developed by the proponents of certain water projects, in cooperation with CDOW staff, for submittal to and approval by the Colorado Wildlife Commission (CWC). The statute further directs the CWC to forward approved mitigation plans to the Colorado Water Conservation Board (CWCB) for its approval. Once approved by the CWCB, the plan constitutes the State of Colorado's official position regarding appropriate mitigation for the water resource development project in question. The statute also provides for a dispute resolution process should the project proponent be unable to reach agreement on appropriate mitigation measures with CDOW staff, or should the CWC not approve the proposed plan.</p> <p>The CDOW has a reasonable expectation that agreement can be reached on a suitable FWMP within a reasonable time frame. Therefore, in view of the State of Colorado's historic jurisdiction over fish and wildlife resources within its borders, the CDOW requests the Corps to provide appropriate deference to the state's process for the development of a FWMP for the proposed project. CDOW further requests that any terms attached to its Record of Decision include the commitments made by the project proponent in the pending FWMP.</p> <p>CDOW recognizes the State of Colorado shares legal jurisdiction with the federal government for certain categories of fish and wildlife resources and their habitats, and further recognizes that various federal permitting requirements that pertain or may pertain to the proposed project require mitigation of fish and wildlife resources and related habitats. Examples include protections afforded and otherwise required by the Fish and Wildlife Coordination Act, the federal Endangered Species Act, the Clean Water Act, the Migratory Bird Treaty Act, the Federal Land Management and Planning Act, and the Golden and Bald Eagle Protection Act. CDOW believes that the process for the development of FWMPs sanctioned under state law can address most of the mitigation requirements needed to minimize or offset impacts of the proposed project to fish and wildlife resources. The CDOW strongly recommends that fish and wildlife mitigation requirements that may be unique to federal permitting and regulatory authorities be coordinated with the state's pending FWMP to ensure efficient and effective implementation.</p>	<p><i>Basin through which the imported water will flow. The Moffat Collection System Project has begun to explore possibility of dedicating some of the water brought from Fraser River system towards instream flow water rights in the South Boulder Creek drainage. While there are no definite plans to use the CWCB's Instream Flow Program as a part of this project or associated mitigation, to the extent that this project will use the Instream Flow Program, the CWCB will be significant involved.</i></p> <p>Response #1769-57: The Corps notes the comment.</p> <p>Comment #1769-45 (ID 4494): <i>Conclusions from the Colorado Water Conservation Board The Colorado Water Conservation Board does not have a role in permitting water projects and therefore does not evaluate individual water supply projects. The Board's statutory duty is to promote the greatest utilization of water and to work with water providers on the conservation and development of the waters of the state. In addition, Colorado law includes provisions for the CWCB to review and comment on mitigation plans associated with projects requiring federal permitting, and the CWCB will act accordingly. Our basin-wide and state planning efforts indicate that the extent to which local water providers' projects are not successful, the state's overall M&I water supply "gap" is larger. Conservation and agricultural water transfers will be critical in meeting our future water supply needs, but they will not eliminate the need for new water supply development projects. Additional water projects and the development of new water supplies will be needed to meet our citizen's water needs. If it is not the Moffat Collection System Project and other water projects currently in the permitting process then alternative/different water supply projects will need to be found. CWCB is concerned that reasonable projects developed by local water providers will not move forward. CWCB realizes that there will be impacts with water projects. These impacts should be identified, minimized, and mitigated for, rather than looking for reasons to stop each individual project. Colorado is facing a challenging</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p><u>Flow Related Issues – East Slope</u></p> <p>Chapter 3</p> <p>3-58: The MCSP DEIS states that “all operations under the South Platte Protection Plan are under the principal of no loss to existing or future supplies. It is possible that conditions may allow Denver to reduce bypass flows from 11 mile and Cheesman Reservoirs.” Further, Section 4-108 states “Reductions in bypass flows below Eleven Mile Canyon and Cheesman reservoirs were not included in PACSM; however, there is no indication that reductions in bypass flows would increase under the proposed action.” Unforeseen circumstances may arise, however, and the final document should contain a statement that a reduction in bypass flow under the South Platte Protection Plan will not under any circumstances occur due to operations under the proposed action. If a reduction in bypass flow does occur the resultant impacts should be documented.</p> <p>Table 3.9-4: This table shows that the expected change in monthly flow between Chatfield Reservoir and Bear Creek may be larger than 10% during some months. Winter flows in this reach are often critically low and flow changes in excess of 10% may be significant. CDOW is concerned that the proposed action may exacerbate conditions in an already flow depleted reach. CDOW believes the FEIS should analyze and discuss the potential changes to fish habitat in this reach.</p> <p>Chapter 4</p> <p>4-96 and 4-97: The DEIS states that the proposed action is expected to have negligible or no impact on channel morphology of South Boulder Creek below Gross Reservoir. However, it is also stated that increased sediment transport capacity could lead to localized bed and bank erosion. We are concerned that this may locally affect in-stream and riparian habitat in addition to changes in flow, and recommend that the FEIS clarify and document the extent of anticipated localized bed and bank erosion and any associated aquatic life impacts.</p> <p>4-109: Under the proposed action, water would be moved within the Denver water system between Strontia Springs, Chatfield and Marston reservoirs differently than is the current practice. Current Denver water operations result in zero flow days below Chatfield dam. It is unclear how the proposed action for operations of Chatfield Reservoir will impact average daily flows released from the reservoir. The FEIS should clarify this potential flow impact and should characterize associated impacts to aquatic life below Chatfield.</p> <p>4-325: The flows in South Boulder Creek upstream of Gross Reservoir would increase 10 to 22% during June and July (average flow year). This increase will negatively impact the survival of emerging brown trout fry. The FEIS should document associated impacts to current brown trout population levels, particularly within the reservoir, and should include information on the amount of supplemental stocking that may be needed to maintain current population levels. Brook trout fry typically emerge much sooner from redds in South Boulder Creek upstream of Gross and will likely not be substantially impacted by these increased flows.</p> <p>Denver Water has proposed to compensate for the loss of stream channel above Gross Reservoir by enhancing low flows in South Boulder Creek downstream of Gross Reservoir. South Boulder Creek above the South Boulder Diversion Canal provides habitat for salmonid species and stream enhancement work has already been completed within this segment. Additional work above the South Boulder Diversion Canal is both unnecessary and unachievable due to the</p>	<p><i>water supply future. If we want to continue to have a robust and diversified economy, we need to implement a combination of conservation, agricultural transfers and new water supply development. All three strategies will be critical in meeting our future needs.</i></p> <p>Response #1769-45: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1769-3 (ID 4493): <i>Colorado Division of Water Resources The Colorado Division of Water Resources (DWR) is responsible for the supervision and control of water resources in this State, pursuant to statute. Water administration is the DWR's principal duty, requiring daily oversight of the allocation system that distributes water to farmers, industries, municipalities, and all other water users. This allocation system is performed in accordance with the Doctrine of Prior Appropriation (the first entity to historically use water in a stream retains the first priority to continue diverting water for the same use), Colorado Supreme Court decisions, water court decrees, compact obligations, and rules & regulations issued by the State Engineer.</i></p> <p>Response #1769-3: The Corps notes the comment.</p> <p>Comment #1769-44 (ID 4492): <i>Pursuant to the statutory duty and mission of the DWR, the following comments are offered: Water Rights Ensure existing water rights and decrees are upheld. Ensure the DWR is kept informed in decisions made as to enhancement opportunities and agreements made pursuant to and in addition to the Mitigation Plan. It is our understanding that, in addition to mitigating Moffat Project impacts, Denver Water is working with interested parties to offer additional environmental enhancements opportunities to the EIS process. These enhancement opportunities have not yet been made public but may include bypass agreements. As the project progresses,</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>geography of the segment. Mitigation and enhancement of South Boulder Creek should be maximized downstream of the Boulder Supply Canal in order to benefit sections of South Boulder Creek in need of improvement. CDOW will seek to address this concern with Denver Water in the course of developing the FWWMP.</p> <p>The flows in South Boulder Creek would generally decrease in wet years in May and June because Denver Water would divert more native South Boulder Creek water via the South Boulder Diversion Canal. We agree that raising the dam at Gross Reservoir in order to store an additional 5,000 acre-feet of water (water owned by cities of Lafayette / Boulder) is important for planned future enhancements to sections of South Boulder Creek downstream of the South Boulder Diversion Canal that have been identified as having marginal in-stream habitat.</p> <p>Appendix M –page M-10: Denver Water previously committed in the 1998 Denver-Boulder Agreement not to divert South Boulder Creek water from November to March if it would cause flows to drop below 7 cubic feet per second (cfs) in the creek downstream of the diversion canal. As mitigation, Denver Water has proposed to increase the size of Gross Reservoir by 5,000 acre-feet. The water that would fill this space belongs to the cities of Boulder and Lafayette and would be used for environmental in-stream flows downstream in South Boulder Creek. Further, CDOW understands this “Additional Storage” would be water rights that are exchanged up to Gross Reservoir. It appears that this arrangement could allow Denver Water to divert more water under its existing Colorado River rights for consumptive use on the East Slope than it has in the past under the terms of the Denver-Boulder Agreement. The FEIS should include additional information on the degree to which this flow mitigation arrangement designed to benefit South Boulder Creek will result in additional West Slope diversions for consumptive use purposes on the East Slope.</p> <p>Chapter 5</p> <p>5-14: The cumulative effects section indicates that not enough data is available for the Chatfield Reallocation Project to determine cumulative effects. The Corps has completed modeling efforts for the Chatfield Reallocation DEIS. Denver has completed PACSM modeling that includes Chatfield Reservoir and effects of the reallocation. CDOW believes there will be cumulative effects that should be delineated in the FEIS. The Chatfield Reallocation Preliminary DEIS concludes that flows downstream may be impacted by the reallocation.</p> <p>Denver Water’s proposal to install pumps at Chatfield Reservoir is not included in the cumulative effects analysis. Flows downstream from Chatfield Reservoir may be impacted due to Denver’s proposed action and the Chatfield Reallocation Project. CDOW believes that the FEIS should fully document the cumulative impacts on stream flows of the Chatfield Reallocation Project, particularly in winter months.</p> <p>Appendix H-1: This appendix discusses how the flow regime would change from Current Conditions and Full Use Existing System below Chatfield Reservoir, and states that flow would be reduced by 11% on an average year, 10% on a dry year, and 5% on a wet year. Flow changes below Chatfield if any of the Alternative Actions are adopted are not discussed and CDOW would like a discussion of how flows would be affected by the proposed changes.</p> <p>Table H-3.34 and Table H-3.40: These tables show flow-related changes under the proposed alternative on the North Fork of the South Platte River.</p> <p>The North Fork of the South Platte River supports a self-sustaining brown trout fishery. The most significant limiting factor to the brown trout fishery in the North Fork of the South Platte</p>	<p><i>the DWR requests that it be kept informed as to the agreements made pursuant to and in addition to the Mitigation Plan, including any agreements that contemplate bypass water flows. Please be aware that, as noted above, DWR administers water pursuant to court decrees, state statutes, compacts, and properly promulgated rules and regulations. Private bypass flow agreements are not enforced by the DWR.</i></p> <p>Response #1769-44:</p> <p>A Section 404 Permit would not impose conditions on the operation of the Project that are within the jurisdiction of Colorado water law. The Corps defers to the State on the administration of water law issues. Denver Water states that it intends to follow Colorado water law and the administration of the SEO in implementing the Moffat Project.</p> <p>Pursuant to C.R.S. 37-60-122.2, Denver Water prepared a Fish and Wildlife Mitigation Plan to mitigate potential impacts of the Moffat Project on the State’s fish and wildlife resources. Denver Water also prepared a Fish and Wildlife Enhancement Plan to enhance fish and wildlife resources over and above the levels that exist or would exist without the Moffat Project. Refer to FEIS Appendix M for a copy of these plans. In June 2011, the Colorado Wildlife Commission unanimously approved the both plans and authorized CPW to enter into an IGA with Denver Water to implement the Fish and Wildlife Enhancement Plan. In July 2011, the CWCB adopted the Fish and Wildlife Mitigation Plan. The Fish and Wildlife Mitigation Plan is the official State position on mitigation of impacts to fish and wildlife resources. The enhancement opportunities referred to in the comment have now been made public in the CRCA, which is the result of five years of negotiations between Denver Water and 34 West Slope entities. This agreement provides for: (1) resolution of historic conflicts and a holistic approach to resolving Colorado water disputes, (2) cooperative, long-term efforts to improve the health of the Colorado River mainstem and its tributaries, and (3) additional water supply for those who live, work and play on the West</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>River is overwinter pool habitat. This was caused by an increase in width-to-depth ratios when the Roberts Tunnel was built to handle additional flows brought to the North Fork of the South Platte from Dillon Reservoir. The current river channel has a bankfull flow of approximately 1200 cfs and during the winter the Roberts Tunnel flows irregularly. In the proposed alternatives, flows recorded at the Geneva Creek gage in the months of November through March will be decreased on an average precipitation year by approximately 27.8%, on a dry precipitation year by approximately 24.4%, and on a wet precipitation year by approximately 30.4%. Roberts Tunnel diversions will be decreased by approximately 34.8 %, 27.8%, and 39.2% respectively. These proposals will limit the recruitment of the naturally reproducing brown trout in the North Fork of the South Platte River.</p> <p>In the summer months, the limiting factors to the brown trout fishery are high flows, low nutrient content, and low temperatures from the water diverted near the bottom of Dillon Reservoir through the Roberts Tunnel. In the proposed alternatives, flows recorded at the Geneva Creek gage in the months of May through August will be increased on an average precipitation year by approximately 17%, on a dry precipitation year by approximately 13.75%, and on a wet precipitation year by approximately 4%. Roberts Tunnel diversions will be increased by approximately 47.25%, 13.25%, and 176.75% respectively. These increases in flows will further limit fry survival and growth rates for brown trout in the North Fork of the South Platte River.</p> <p>The FEIS should acknowledge, and to the greatest extent possible quantify, anticipated impacts to the brown trout fishery in the North Fork of the South Platte River. CDOW intends to work with the project proponent through the state's FWMP process to develop appropriate mitigation measures to address these impacts.</p> <p>Flow Related Issues – West Slope</p> <p>Grand County has invested significant resources in recent years to study appropriate flows in the Colorado and Fraser river systems with the most current available science. This is the most thorough study of stream morphology that has been conducted in this area to date, and CDOW views the Grand County Stream Management Plan as a critical document in determining the future condition of the upper Colorado River System. We recommend that this document be taken into consideration when assessing the impacts of the MCSP, Windy Gap Firming Project and the cumulative effects of both projects.</p> <p>Section 3.13 Recreation and Section 3.17 Socioeconomics</p> <p>In Section 3.13, the Fraser River is described as offering "...numerous, diverse, high-quality fishing experiences. The upper tributaries that feed the Fraser River are best known for their small stream fishing opportunities." The Williams Fork River is also described as offering "...numerous, high-quality fishing opportunities. The upper reaches of the Williams Fork and its tributaries are best known for their small stream fishing opportunities." The Colorado River "...offers outstanding fishing opportunities, considered to be among the best in the state." The Blue River "...provides excellent tailwater fishing opportunities year round." Section 3.17 defines the affected socioeconomic environment within the Project Area, and touches upon Grand County, stating that 2002 expenditures for fishing trips and equipment exceeded \$12.2 million dollars.</p> <p>CDOW is concerned that the project may negatively impact the affected environment's capability to produce high-quality fish populations and reduce angling opportunities in rivers and streams. Further, the impacts of increased water diversions, less dilution of wastewater treatment</p>	<p>Slope and for customers of Denver Water. Denver Water and the West Slope parties have been actively engaged with the State of Colorado officials from CDNR, CDWR, and the Attorney General's office, as well as with officials from the Reclamation, to discuss and resolve issues related to water resources and implementation of the agreement. A description of the CRCA appears in FEIS Section 4.3.1.</p> <p>Comment #1769-2 (ID 4491): <i>Colorado River Compact and Upper Colorado River Basin Compact Colorado has two compacts with neighboring States which apportion water of the Colorado River basin for use to each State. The CWCB has addressed the global issues of the Compact in their comments on this EIS, including available capacity under Colorado's entitlement. In the event water administration is required to meet compact obligations, the DWR will perform administration consistent with properly promulgated rules and regulations.</i></p> <p>Response #1769-2: The Corps notes the comment.</p> <p>Comment #1769-4 (ID 4490): <i>Colorado Division of Wildlife Thank you for the opportunity to provide comments on the manner in which impacts to fish and wildlife resources and fish and wildlife-related recreation are characterized and evaluated in the Draft Environmental Impact Statement for the proposed Moffat Collection System Project (MCSP). These comments generally are confined to the project proponent's proposed action (Alternative 1a), though the Colorado Division of Wildlife (CDOW) encourages the U.S. Army Corps of Engineers (Corps) to use these comments as an indicator of DOW's concerns regarding other alternatives wherever analysis demonstrates that the impacts to fish and wildlife of those alternatives are substantially similar to the impacts of the proposed project. If throughout the course of this process a different alternative, or substantially modified version of, the proposed action is</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>plant effluent and reduced sediment transport capability in oversized stream channels may combine to significantly lower the quality recreational experience of the project area as stated in</p> <p>Section 3.13: CDOW would like to see a more exhaustive examination of the proposed project's impacts on wildlife-related recreation and associated impacts to the economies of local communities, especially those in Grand and Summit Counties.</p> <p>Section 3.8 Special Status Species</p> <p>3-197: The DEIS states that "This species (greenback cutthroat trout) was petitioned for listing as threatened, but a 12-month finding by the USFWS in 2007 determined that listing was not warranted at that time (USFWS 2007)." Actually, greenback cutthroat trout are currently listed as a threatened species by the USFWS. The cutthroat trout populations in Bobtail, Steelman, and Little Vasquez creeks have been identified through genetic analysis as "Lineage GB," suggesting that these fish align most closely with greenback cutthroat trout. While there is much that remains to be sorted out regarding this finding, for the purposes of the Endangered Species Act and the Greenback Cutthroat Trout Recovery Plan, the USFWS does consider these populations to be greenback cutthroat trout.</p> <p>Table G-1 and Section 3.8.2 "Conveyance Systems": The table and the discussion need to include greenback cutthroat trout presently found on the western slope.</p> <p>Colorado River cutthroat trout are a state species of special concern. While not a statutory designation, we believe that State designation of "species of special concern" qualifies Colorado River cutthroat trout as a special status species. This species has been repeatedly petitioned for listing by interested groups under the Endangered Species Act. This species should be listed as present within the various drainages associated with this project. The CDOW can provide information on Colorado River and greenback (Lineage GB) cutthroat trout conservation and core conservation populations.</p> <p>Chapter 4</p> <p>4.1 Surface Water</p> <p>4-8: On February 8, 2010, the Colorado Water Quality Control Commission made recommendations to list part of Upper Colorado River Basin Segment 3 (COUCUC03), part of Upper Colorado River Basin Segment 4 (COUCUC04), and all of Upper Colorado River Basin Segment 10c (COUCUC10c) on the 303(d) list (Regulation 93; CCR 1002-93) of impaired waters for exceedances of the standards for temperature. These segments are defined in Colorado Water Quality Control Commission Regulation #33 (5 CCR 1002-33) as:</p> <p>COUCUC03: Portion recommended for 303(d) listing: Road 578 Bridge to confluence with Blue River.</p> <p>COUCUC04: Portion recommended for 303(d) listing: Ranch Creek.</p> <p>COUCUC10c: Mainstem of the Fraser River from a point immediately below the Hammond Ditch to the confluence with the Colorado River. Portion recommended for 303(d) listing: All.</p> <p>These segments were included in the Water Quality Control Commission's recommendation based on multiple exceedances of the acute (daily maximum) and chronic (maximum weekly</p>	<p><i>chosen, CDOW requests the courtesy of additional time to respond to the amended choice of preferred Alternative. The proposed project's potential wildlife and wildlife-related recreation impacts span two distinct geographic regions, the "East Slope" and the "West Slope." Therefore, the following comments are organized according to the manner in which the DEIS characterizes and evaluates wildlife impacts as they relate to these two geographic regions. Further, the following comments or organized to address aquatic or "flow-related" impacts of the proposed project within both regions, as well as terrestrial impacts of the proposed project.</i></p> <p>Response #1769-4: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA. Responses to terrestrial and aquatic wildlife impacts are provided in the appropriate locations throughout the letter.</p> <p>Comment #1769-56 (ID 4489): <i>These comments are focused predominantly on the manner in which the DEIS characterizes impacts to fish and wildlife resources. They also address CDOW's views on appropriate mitigation measures that should be undertaken to offset the propose project's otherwise unavoidable impacts to fish and wildlife and fish and wildlife-related recreation, but only in a cursory way. This is due to the fact that, pursuant to the requirements of C.R.S. 37-60-122.2, CDOW and the project proponents have initiated discussions to produce a Fish and Wildlife Mitigation Plan (FWMP). C.R.S. 37-60-122.2 requires such plans to be developed by the proponents of certain water projects, in cooperation with CDOW staff, for submittal to and approval by the Colorado Wildlife Commission (CWC). The statute further directs the CWC to forward approved mitigation plans to the Colorado Water Conservation Board (CWCB) for its approval. Once approved by the CWCB, the plan constitutes the State of Colorado's official position regarding appropriate mitigation for the water resource development project in</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>average temperature) temperature standards set for protection of aquatic life. The DEIS notes on page 4-8 that the Colorado River near Windy Gap and the Fraser River near Fraser could experience "negligible to minor impacts to stream temperature" while Ranch Creek may experience "moderate impacts with regards to a potential increase in stream temperature". Given the documented exceedances of the temperature standards set for protection of aquatic life in these segments and the likelihood that the Colorado Water Quality Control Commission's final action on the 2010 303(d) list will result in the addition of the segments or specified reaches therein to the 303(d) list, the EIS should more thoroughly address potential impacts of the proposed project on these water-quality impaired segments, specifically addressing future attainment of standards for temperature as they relate to expected hydrologic modifications. We believe that in light of 303(d) impairment listings, it is inaccurate to conclude that increased stream temperatures resulting in higher frequency of exceedance constitute negligible or minor impacts.</p> <p>4-10: PACSM's study period of 1947 through 1991 fails to utilize data from the significant drought years of 2002-2004. We believe that better model results could and should be obtained by using the full range of data available.</p> <p>4-51-59: In multiple locations throughout the DEIS a statement appears that the sediment transport capacity of the Fraser River under the Proposed Action will remain "orders of magnitude greater than the sediment supply." We believe the Fraser River has a major problem with sediment transport in certain locations. In particular, upstream of the Vasquez Creek confluence a massive quantity of highway sand has created aggradation, embedded the substrate, and otherwise negatively impacted the aquatic habitat. We believe that we have seen the results of these problems in the biological community of the stream (discussed further below). We would like Denver to more fully evaluate sediment transport within this reach.</p> <p>4-27: The DEIS discusses water level changes in Williams Fork Reservoir. This lake serves as an important egg source to sustain kokanee salmon fisheries throughout the state. Kokanee form a critical link in the food chain of our coldwater reservoirs and are extremely popular with anglers. The DEIS states "...additional exports from the basin would occasionally result in substantially lower late summer reservoir contents ...". Based on our past experience with kokanee spawning behavior in the lake, this is a concern to the CDOW. CDOW fishery biologists have seen lower lake levels inhibit the movement of the kokanee into the Williams Fork inlet stream, reducing the availability of eggs for CDOW's spawning operation.</p> <p>In addition to impacts on kokanee spawning operations, lower water levels in Williams Fork Reservoir have the potential to affect other sport fish species in the lake. When the lake was drawn down to extremely low levels during the drought conditions of 2002 and 2003, we observed a major decline in lake trout, northern pike, rainbow and brown trout populations which are only now recovering. If the implementation of this project results in a greater likelihood or frequency of major drawdowns similar to drought conditions, the result is likely to be significant and recurring negative impacts to the sport fishery in the reservoir.</p> <p>4-28: The description of effects to Dillon Reservoir water levels is that the reservoir would spill less during the summer months. The appendices dealing with Dillon Reservoir effects do not include a category projecting the number of anticipated days of surface spill to the Blue River. CDOW would like to see that information included in the FEIS. The Blue River below Dillon Reservoir through the town of Silverthorne supports a highly valuable gold-medal trout fishery. Despite the high quality of the fishery, the Blue River has a low level of productivity, marked by</p>	<p><i>question. The statue also provides for a dispute resolution process should the project proponent be unable to reach agreement on appropriate mitigation measures with CDOW staff, or should the CWC not approve the proposed plan.</i></p> <p>Response #1769-56: Please see the response to Comment ID 4509.</p> <p>Comment #1769-17 (ID 4488): <i>The CDOW has a reasonable expectation that agreement can be reached on a suitable FWMP within a reasonable time frame. Therefore, in view of the State of Colorado's historic jurisdiction over fish and wildlife resources within its borders, the CDOW requests the Corps to provide appropriate deference to the state's process for the development of a FWMP for the proposed project. CDOW further requests that any terms attached to its Record of Decision include the commitments made by the project proponent in the pending FWMP. CDOW recognizes the State of Colorado shares legal jurisdiction with the federal government for certain categories of fish and wildlife resources and their habitats, and further recognizes that various federal permitting requirements that pertain or may pertain to the proposed project require mitigation of fish and wildlife resources and related habitats. Examples include protections afforded and otherwise required by the Fish and Wildlife Coordination Act, the federal Endangered Species Act, the Clean Water Act, the Migratory Bird Treaty Act, the Federal Land Management and Planning Act, and the Golden and Bald Eagle Protection Act. CDOW believes that the process for the development of FWMPs sanctioned under state law can address most of the mitigation requirements needed to minimize or offset impacts of the proposed project to fish and wildlife resources. The CDOW strongly recommends that fish and wildlife mitigation requirements that may be unique to federal permitting and regulatory authorities be coordinated with the state's pending FWMP to ensure efficient and effective implementation.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>slow growth of trout. Temperature monitoring has shown that this reach of river often does not enter the optimum temperature range for feeding and growth of trout (12-18 degrees C) unless water is spilling off the surface of Dillon Reservoir. We believe that cold water temperatures are probably the single most important limiting factor to this tailwater fishery. Fewer total days of surface spill from Dillon Reservoir would likely reduce the productivity in this reach of river. The DEIS should acknowledge this impact. CDOW intends to discuss with the project proponent the feasibility of retro-fitting the outlet works on Dillon Dam to allow for water from multiple levels of the reservoir to be released when the reservoir is not spilling, thus allowing for a longer period of time annually when water temperatures are within the optimum feeding and growth range for trout.</p> <p>4.9 Aquatic Biological Resources</p> <p>4-315: The Fraser River within and above the Town of Winter Park supports a unique wild brook trout fishery. At the Confluence Park population monitoring station, which appears to overlap at least partially with the IFIM site for Segment 1, brook trout have comprised an average of 72% of the total trout catch over the past three sampling occasions (2006, 2007, and 2009). Average biomass for brook trout greater than 5.9 inches in this reach over these three sampling occasions was 53 pounds per acre. CDOW considers this a quality wild brook trout fishery, which is rare in this area. Accordingly, CDOW believes that fry and juvenile life stages of brook trout should be included in the IFIM analysis.</p> <p>CDOW is concerned that the highest upstream IFIM analysis segment on the Fraser River is below the confluence with Vasquez Creek. The brook trout population above the Vasquez Creek confluence becomes sparse, even for a typical mountain stream. Our 2007 surveys (two stations) above the confluence found fish larger than 5.9 inches exceedingly rare. At the station where the Fraser passes beneath Highway 40, the size distribution and density of brook trout was very poor for the area. Based on these observations, CDOW believes that above the Vasquez creek confluence the brook trout population is being limited by an as-yet-unknown factor, and that IFIM analysis on this reach of river should be an important element of this section in the FEIS.</p> <p>Mottled sculpin (<i>Cottus bairdi</i>) are abundant in the Fraser River below the confluence with Vasquez Creek. This is a native species which fulfills an important ecological function by providing prey base for larger trout to exploit and grow to sizes beyond what would be allowed by an exclusively invertebrate prey base. On the last three sampling occasions in the Confluence Park reach the total catch of sculpin averaged 102 fish. Sampling on the Fraser above the Vasquez Creek confluence failed to find even one sculpin. The absence of sculpin indicates a major ecological change over a short geographical area. CDOW believes that discussion of the habitat needs, population status, limiting factors, or ecological function of this species should be included in the FEIS.</p> <p>4-313: The first full paragraph contains a discussion of benthic invertebrates reading "In this analysis, impacts on these benthic invertebrate community parameters were evaluated..." This is the first time that benthic invertebrates are discussed in this section, and so it is unclear what parameters are being referred to. The previous paragraph discusses fish egg incubation and dewatering. It appears there may have been information mistakenly omitted between the two paragraphs. Also, there are several statements made in this paragraph regarding benthic invertebrate habitat needs with no supporting documentation. CDOW believes the quality of this analysis could be improved by including references to studies which support the claims that are made in this paragraph.</p>	<p>Response #1769-17: Please see the response to Comment ID 4511.</p> <p>Comment #1769-13 (ID 4487): <i>Flow Related Issues - East Slope Chapter 3 3-58: The MCSP DEIS states that "all operations under the South Platte Protection Plan are under the principal of no loss to existing or future supplies. It is possible that conditions may allow Denver to reduce bypass flows from 11 mile and Cheesman Reservoirs." Further, Section 4-108 states "Reductions in bypass flows below Eleven Mile Canyon and Cheesman reservoirs were not included in PACSM; however, there is no indication that reductions in bypass flows would increase under the proposed action." Unforeseen circumstances may arise, however, and the final document should contain a statement that a reduction in bypass flow under the South Platte Protection Plan will not under any circumstances occur due to operations under the proposed action. If a reduction in bypass flow does occur the resultant impacts should be documented. Table 3.9-4: This table shows that the expected change in monthly flow between Chatfield Reservoir and Bear Creek may be larger than 10% during some months. Winter flows in this reach are often critically low and flow changes in excess of 10% may be significant. CDOW is concerned that the proposed action may exacerbate conditions in an already flow depleted reach. CDOW believes the FEIS should analyze and discuss the potential changes to fish habitat in this reach.</i></p> <p>Response #1769-13: The Proposed Action would not change the likelihood of conditions under which Denver Water may reduce bypass flows below Eleven Mile Canyon and Cheesman reservoirs to insure no loss of yield. The Proposed Action would not affect the South Platte Protection Plan (SPPP) agreement or Denver Water's ability to meet minimum outflows from Eleven Mile Canyon and Cheesman reservoirs. Any reduction in bypass flows or other proposed flow regimes would be a function of Denver Water's existing operations, not the proposed Moffat</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>4-324: The discussion of impacts to the aquatic biological resources on the Colorado River is inadequate. In the years since the original Windy Gap project was built, the reach of river downstream from the Windy Gap diversion has seen major ecological changes that were never predicted by the original Windy Gap EIS. These include a severe decline in the stonefly <i>Pteronarcys californica</i>, the most important invertebrate trout food source in the river, and of mottled sculpin. CDOW believes that these changes may be related to a lower frequency, intensity, and duration of flushing flows. Dissolved oxygen levels and the impacts of river icing may also be implicated. It is reasonable to anticipate these problems to correlate with increased diversions occurring in the future. While the Moffat project will not account for the largest quantity of water being diverted in the future from the Colorado River, it will contribute a significant amount to the reduction in high flows. CDOW believes these impacts need to be cumulatively assessed and presented in the FEIS.</p> <p>General Issues</p> <p>The DEIS does not include any analysis of the subject of entrainment of fish into the Moffat Collection System. This is a concern, particularly with respect to the tributaries which contain Lineage-GB cutthroat trout. Based on CDOW's experiences with diversion structures in general, we believe that there is some amount of entrainment and loss of fish into the system. It stands to reason that additional losses through entrainment would occur with additional diversions in the system. The FEIS should acknowledge this as an impact to both special status species, and aquatic biological resources in general.</p> <p>The DEIS notes that cutthroat trout have been found below the Moffat Collection System diversion structures in multiple locations (e.g. Cabin Creek, Bobtail Creek, etc.). The presence of these fish below diversion structures suggests that these fish may constitute functioning portions of the population. However there is no discussion regarding the extent of these impacts to these fish in the DEIS.</p> <p>Rates of change in flow at the diversion structures are not discussed in the DEIS. CDOW personnel, along with USFS personnel and members of the general public, have commonly observed stranded fish downstream of diversion structures in the Moffat Collection System. Stranding of fish typically occurs in streams when flow rates change drastically downward in a short period of time. We view the loss of these fish as an impact of the current system as it is presently operated, and likely an additional impact if the project is implemented with additional diversions occurring. Therefore, the FEIS should include analysis and discussion of the impacts of changes in flow rates below certain diversion structures in the Moffat Collection System, including the estimated magnitude of these impacts based on the frequency with which flow rates are expected to drop so precipitously as to possibly strand fish.</p> <p>Terrestrial Issues – East Slope</p> <p>Chapter 3</p> <p>3.7 Wildlife</p> <p>3-169: Enlargement of Gross Reservoir will have impacts on terrestrial habitat and wildlife in the surrounding area due to noise and disturbance from on-site construction and quarrying activities, concrete production, erosion, creation of new roads, spoil, and staging areas, removal of vegetation, and inundation of tree, shrub, riparian and wetland habitats. Inundation of additional stretches of South Boulder Creek above Gross Reservoir and the narrowing of the</p>	<p>Project. If it is determined that operations under the SPPP would result in loss of existing or future water supplies, Denver Water could reduce bypass flows below Eleven Mile Canyon and Cheesman reservoirs, however, that would be a function of Denver Water's existing operations and not an impact of the proposed Moffat Project. Operations under the SPPP are a function of Denver Water's existing operations and reasonably independent of impacts from the proposed Moffat Project. Since the Proposed Action increases Denver Water's firm yield, system reliability and flexibility, the frequency and magnitude of bypass flow reductions below Eleven Mile Canyon and Cheesman reservoirs, if needed, could potentially decrease. The Proposed Action would not decrease Denver Water's ability to meet the terms and conditions of the SPPP agreement in which case there would be no negative impact on South Platte River Outstandingly Remarkable Values due to the Project. The portion of Section 3.1.5.7, which discusses the SPPP and minimum bypass below Eleven Mile Canyon and Cheesman reservoirs was revised.</p> <p>Table 3.9-4 shows that flows changes in the reach between Chatfield Reservoir and Bear Creek would be larger than 10% during some months in which case impacts on aquatic resources in that reach were discussed in detail (see DEIS Section 4.9.12, subheading South Platte River).</p> <p>Comment #1769-11 (ID 4486): <i>Chapter 4 Pages 4-96 and 4-97: The DEIS states that the proposed action is expected to have negligible or no impact on channel morphology of South Boulder Creek below Gross Reservoir. However, it is also stated that increased sediment transport capacity could lead to localized bed and bank erosion. We are concerned that this may locally affect in-stream and riparian habitat in addition to changes in flow, and recommend that the FEIS clarify and document the extent of anticipated localized bed and bank erosion and any associated aquatic life impacts.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>canyon in this area may affect movement of elk and deer in the vicinity of the town of Pinecliffe. The proposed project will impact the area immediately surrounding Gross Reservoir the most and will somewhat alter flows in South Boulder Creek. CDOW will explore with the project proponent how to minimize impacts to wildlife and habitat by concentrating the majority of the East Slope impacts to a single site.</p> <p>Elk and Deer</p> <p>3-169: Gross Reservoir currently provides habitat for elk and mule deer year-round, and is especially important during winter conditions. Lands west of the reservoir have been designated as elk winter concentration areas and severe winter range. Vegetation along the shoreline is largely forest cover containing ponderosa pine and Douglas-fir. All trees would be removed between the normal pool elevation (7,282 feet) and 7,410 feet, which is 10 feet above the 72,000 acre-foot expansion elevation contour.</p> <p>The removal of shoreline vegetation and the potential change of use may force deer and elk to adjacent private lands, potentially increasing CDOW's obligations under its statutory responsibilities for game damage compensation. Additionally management of nuisance wildlife issues and public safety continues to be a CDOW priority. Hunting is the primary tool for managing herd size. In areas of Boulder County near Gross Reservoir closure of lands that have traditionally been open to hunting could make it more difficult to achieve adequate harvest of big game. Therefore, CDOW feels it is essential to maintain hunting on public lands in this area. During the construction phase, CDOW intends to work with the project proponent to develop options to minimize construction phase impacts to the elk and deer herds in the area. Future management of the elk and deer herds are likely to require additional discussions as additional information is developed on herd response to changes created by the proposed project, and CDOW looks forward to cooperating with Denver Water on these issues.</p> <p>Raptors, Sensitive Species and Birds</p> <p>3-171: The area around Gross Reservoir provides raptor habitat, including nesting and hunting sites for birds of prey. Raptors are sensitive to human intrusion, especially at nest sites. Bald eagles and Northern Goshawks have the potential to occur at Gross Reservoir, but no nests are currently known. Vegetation around Gross Reservoir provides quality habitat for game birds including dusky grouse and wild turkeys, as well as a variety of songbirds such as the mountain chickadee, northern flicker and Steller's jay. Patches of dead ponderosa pines on the west side of the reservoir provide good habitat for cavity nesting birds. Other special status species likely to inhabit the area include the peregrine falcon and Townsend's big-eared bat. CDOW intends to work with the project proponent to develop options to minimize impacts during the construction phase and beyond to raptors and other bird species that inhabit the area.</p> <p>Hunting, Fishing and Other Recreation</p> <p>3.13.1.1 Gross Reservation Recreation</p> <p>3-275: Hunting is not mentioned as a recreational resource in this section. As surrounding areas have developed and hunting closures have been implemented by the City of Boulder, United States Forest Service land surrounding Gross Reservoir has become increasingly important in providing a place for hunters to harvest game species. Hunting and fishing are traditional outdoor recreational activities enjoyed throughout Colorado. Hunting is also essential in managing wildlife populations at proper levels to protect habitat and</p>	<p>Response #1769-11: Additional description of localized erosion that may occur in South Boulder Creek has been added to FEIS Sections 4.6.3 and 5.3.</p> <p>The FEIS in Sections 3.11, 4.6.11, and 5.11 has been modified to incorporate updated information on channel morphology and riffle-pool complexes in the streams in the Project area.</p> <p>Comment #1769-10 (ID 4485): <i>Page 4-109: Under the proposed action, water would be moved within the Denver water system between Strontia Springs, Chatfield and Marston reservoirs differently than is the current practice. Current Denver water operations result in zero flow days below Chatfield dam. It is unclear how the proposed action for operations of Chatfield Reservoir will impact average daily flows released from the reservoir. The FEIS should clarify this potential flow impact and should characterize associated impacts to aquatic life below Chatfield.</i></p> <p>Response #1769-10: FEIS Sections 4.6.1 and 5.1 and Appendix H were revised to include a discussion of the flow changes below Chatfield Reservoir under the Moffat Project alternatives. Impacts on aquatic biological resources below Chatfield Reservoir were discussed in DEIS Section 4.9.1.2, South Platte River and is discussed in more detail in the FEIS.</p> <p>There would be no change in the operations for Chatfield Reservoir due to the proposed Moffat Project, however, changes in the amount of reusable effluent available for exchange upstream to Chatfield Reservoir affects the number of zero flow days below the Chatfield dam. Sections 4.6.1 and 5.1 in the FEIS were revised to provide additional discussion of the number of zero flow days below Chatfield under Current Conditions, Full Use of the Existing System, and the Project alternatives.</p> <p>Comment #1769-32 (ID 4484): <i>Page 4-325: The flows in South Boulder Creek upstream</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>reduce nuisance and game damage issues. Through leases and other arrangements, hunting provides economic benefit to private land owners and the local economy. As Colorado's population increases, the opportunity to provide additional access to stream and lake recreational fisheries, especially in close proximity to major metropolitan areas is increasingly important. Additional sites for bird observation and other wildlife related outlets are also essential for continuing public interest in effective resource management.</p> <p>The FEIS should include a more thorough discussion of the degree to which the proposed project will affect wildlife-related recreation.</p> <p>Terrestrial Issues – West Slope</p> <p>Chapter 3</p> <p>3.7 Wildlife</p> <p>3-186: Moose and elk are not mentioned as a species that would be impacted along the river segments. Moose are known to occur within the majority of the tributaries within the Fraser and Williams Fork drainages. Elk use the higher elevation willow complexes during the summer for nursery areas and would therefore be impacted by the higher elevation diversions. The FEIS should be revised to reflect how and to what extent moose and elk in the Fraser and Williams Fork drainages could be affected by the proposed project.</p> <p>Table 3.7 and Table G5 in Appendix G-1: These need to include moose and elk.</p> <p>3.8 Special Status Species</p> <p>3-195: The Affected Environment Chapter relating to special status species lacks information on certain species and the available data for other species is incomplete. Lynx, state endangered and federally threatened species, should be included as a species of special status within the FEIS. Lynx utilize riparian habitat in the summer hunting for snowshoe hare. Lynx are known to occur within the forested habitats within the project area, specifically the Fraser, Williams Fork and Blue River drainages. Peregrine falcons, a state species of concern, are known to breed and forage along the Colorado River near the town of Hot Sulphur Springs and a pair has been seen perching and foraging near Green Mountain Reservoir.</p> <p>Table G2 in Appendix G-1: These need to include lynx and peregrine falcon.</p> <p>3-202: Data used to describe river otter, bald eagle and boreal toad distributions within the river segments of the project area are insufficient. River otter are known and documented along the Fraser River, Colorado River and Williams Fork drainages. CDOW has collected numerous river otter road kill specimens throughout Grand County, specifically along Hwy 40 near the town of Tabernash and Hot Sulphur Springs, and along County Road 3 in the Williams Fork drainage. In addition, CDOW personnel have been conducting annual river otter surveys along the Fraser, Colorado, Muddy, Blue and Williams Fork drainages. Otter use has been identified in all of these drainages. Otters have been documented as far upstream as the Kinney Creek confluence in the Williams Fork drainage.</p> <p>3-203: Boreal toads do occur within the Williams Fork drainage including the vicinity of the Bobtail, Steelman and McQuary Creek area. A known breeding site is located on the Williams Fork below the diversions of the confluence of the 3 upstream drainages. It is mentioned that</p>	<p><i>of Gross Reservoir would increase 10 to 22% during June and July (average flow year). This increase will negatively impact the survival of emerging brown trout fry. The FEIS should document associated impacts to current brown trout population levels, particularly within the reservoir, and should include information on the amount of supplemental stocking that may be needed to maintain current population levels. Brook trout fry typically emerge much sooner from redds in South Boulder Creek upstream of Gross and will likely not be substantially impacted by these increased flows. Denver Water has proposed to compensate for the loss of stream channel above Gross Reservoir by enhancing low flows in South Boulder Creek downstream of Gross Reservoir. South Boulder Creek above the South Boulder Diversion Canal provides habitat for salmonid species and stream enhancement work has already been completed within this segment. Additional work above the South Boulder Diversion Canal is both unnecessary and unachievable due to the geography of the segment. Mitigation and enhancement of South Boulder Creek should be maximized downstream of the Boulder Supply Canal in order to benefit sections of South Boulder Creek in need of improvement. CDOW will seek to address this concern with Denver Water in the course of developing the FWMP. The flows in South Boulder Creek would generally decrease in wet years in May and June because Denver Water would divert more native South Boulder Creek water via the South Boulder Diversion Canal. We agree that raising the dam at Gross Reservoir in order to store an additional 5,000 acre-feet of water (water owned by cities of Lafayette / Boulder) is important for planned future enhancements to sections of South Boulder Creek downstream of the South Boulder Diversion Canal that have been identified as having marginal in-stream habitat.</i></p> <p>Response #1769-32: Since brown trout are a small proportion of the fish in Gross Reservoir, minor reductions in brown fish fry survival should have a negligible impact on the reservoir fishery. Mitigation of impacts to fisheries was approved by the Colorado Wildlife Commission on June 9, 2011.</p>

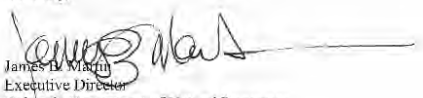
Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Colorado Natural Heritage Program (CNHP) monitors and surveys boreal toad sites in Colorado, and while CNHP does assist with monitoring, the CDOW is responsible for monitoring and tracking of boreal toad breeding sites. The CDOW and U.S. Forest Service (USFS) are the responsible monitoring entities in the Fraser and Williams Fork drainages.</p> <p>3-204: In relation to the information reported on bald eagles there is an active nest near Parshall, CO. There is also an active nest between Windy Gap and Hot Sulphur Springs, and two additional active nests downstream of Green Mountain Reservoir. These eagles forage along the affected river segments of the Colorado and Blue Rivers.</p> <p>Chapter 4</p> <p>4-275: CDOW disagrees with the statement that changes in river flow would not have a noticeable impact on wildlife habitat or wildlife species, because there would be minor impacts to riparian habitat with flow changes. This statement is made repeatedly throughout the document. Although it is difficult to predict how much of an impact will occur, we do believe that the decrease in stream flow and the potential impacts on riparian communities could affect all species that utilize the riparian corridor: beaver, boreal toads, river otters, passerine birds, waterfowl, muskrat, lynx and moose. CDOW supports the idea of an adaptive mitigation plan to assess how the proposed changes impact wildlife species and wildlife habitat and intends to discuss with the project proponent how such an adaptive approach can be developed as part of the state mitigation planning process.</p> <p>4-295: River otters occur within the Williams Fork River drainage. Boreal toads do occur, not "may occur", along the Fraser and Williams Fork rivers.</p> <p>Mitigation</p> <p>We are pleased to see the concepts of performance standards, monitoring requirements, long-term management and adaptive management all discussed in the draft proposed mitigation plan (Appendix M). Biological systems consist of highly complex and unpredictable interactions among species, populations and their environment, and no amount of modeling or prediction can determine exactly what conditions will be present in the future. The CDOW is interested in partnering with the project proponent and any other interested parties in an effort to engage in a long-term adaptive mitigation plan. CDOW looks forward to discussing these and other ideas with the project proponent and the Corps as we move towards finalizing the Fish and Wildlife Mitigation Plan and presenting it to the Colorado Wildlife Commission and Colorado Water Conservation Board, pursuant to requirements of C.R.S. 37-60-122.2. The remainder of these comments regarding mitigation highlight issues CDOW believes should be addressed through the mitigation planning process mandated by state law.</p> <p>Aquatic Mitigation – East</p> <p>Localized bed and bank erosion are identified as impacts to South Boulder Creek and the North Fork of the South Platte River. The described mitigation does not identify monitoring, mitigation or adaptive management for these potential impacts. Any proposed in-stream and/or riparian habitat improvement projects should be monitored to ensure that local erosion does not compromise the integrity and function of habitat structures. Denver Water should be responsible for any future maintenance of habitat structures that may be required.</p>	<p>Comment #1769-55 (ID 4483): <i>Appendix M -page M-10: Denver Water previously committed in the 1998 Denver-Boulder Agreement not to divert South Boulder Creek water from November to March if it would cause flows to drop below 7 cubic feet per second (cfs) in the creek downstream of the diversion canal. As mitigation, Denver Water has proposed to increase the size of Gross Reservoir by 5,000 acre feet. The water that would fill this space belongs to the cities of Boulder and Lafayette and would be used for environmental in-stream flows downstream in South Boulder Creek. Further, CDOW understands this "Additional Storage" would be water rights that are exchanged up to Gross Reservoir. It appears that this arrangement could allow Denver Water to divert more water under its existing Colorado River rights for consumptive use on the East Slope than it has in the past under the terms of the Denver-Boulder Agreement. The FEIS should include additional information on the degree to which this flow mitigation arrangement designed to benefit South Boulder Creek will result in additional West Slope diversions for consumptive use purposes on the East Slope.</i></p> <p>Response #1769-55: Through an IGA with the cities of Boulder and Lafayette, only those entities may store their water rights in the Environmental Pool. The IGA was signed by all parties in February 2010. Water stored by Boulder and Lafayette would include flow rights on South Boulder Creek or exchanged to Gross Reservoir from other locations in the South Platte River Basin. These exchanges would not change existing depletions from the Colorado River Basin. Additionally, Denver Water, per the IGA, would not be allowed to store any water in the Environmental Pool.</p> <p>Comment #1769-12 (ID 4482): <i>Chapter 5 Page 5-14: The cumulative effects section indicates that not enough data is available for the Chatfield Reallocation Project to determine cumulative</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>The described mitigation does not indicate how implementation of proposed mitigation will be phased relative to the completion of an expanded Gross Reservoir. Mitigation goals and milestones should be established and be tied directly to Denver's ability to store additional water.</p> <p>Angling at Gross Reservoir is maintained by the stocking of rainbow trout, lake trout, splake, brown trout, tiger muskie, and kokamee salmon. Although populations of brook and brown trout are self-sustaining in South Boulder Creek upstream of Gross Reservoir, abundance in the reservoir is relatively low. Approximately 76,000 fish of various trout and salmon species and sizes are stocked annually into Gross Reservoir. The enlargement of Gross Reservoir would indeed provide more habitat for fish, however salmonid stocking rates would need to nearly triple in order to maintain current populations or fulfill a "moderate beneficial impact" as described in the DEIS. CDOW is concerned that the ability to provide the necessary additional fish species and sizes to achieve a moderate beneficial impact is lacking under our current cold water hatchery operational capacity.</p> <p>Current regulations at Gross Reservoir limit surface water access to hand propelled watercraft which must be carried to the water's edge. Under the proposed action the surface acreage of Gross Reservoir will substantially increase. Such action will moderately benefit shoreline anglers but severely limit access to substantial portions of the reservoir. The use of electric motors should be considered to provide recreation users increased recreational benefit.</p> <p>Denver Water proposes mitigation to offset "potential minor decreases in available habitat for brown trout and minor adverse effects to benthic invertebrates." Aquatic habitat improvements including pool enhancement, boulder placement, and grade control are proposed in the North Fork of the South Platte River. Although habitat improvements are effective in reversing limiting factors to brown trout fisheries, simple pool enhancement, boulder placement, and grade control measures will not effectively mitigate the limiting factors to the brown trout fishery in the North Fork of the South Platte River on a year round basis due to the described changes in flows. CDOW looks forward to discussing efficacious aquatic habitat improvement mitigation practices on the North Fork of the South Platte River with the project proponent.</p> <p>Denver Water's proposed detailed aquatic habitat improvement plan should be reviewed by CDOW prior to its inclusion in the Final Mitigation Plan. The plan should include provisions for project monitoring and maintenance after a project completion. The scale and reach of proposed improvements are unclear.</p> <p>Denver Water has also recently discussed a mitigation proposal for the Moffat Collection System Project with local City and State governmental agencies, which would involve creating 5,000 acre-feet of "Additional Environmental Storage" at Gross Reservoir, to be released only for environmental purposes. The environmental pool would be filled with water rights owned by Boulder and Lafayette, and would allow for the carryover of water from one year to the next. This water would be released appropriately to provide minimum in-stream flows to South Boulder Creek.</p> <p>It is not clear whether Environmental Storage releases from Gross Reservoir will be decreed for instream flow purposes. Therefore, it is also unclear whether the releases will be administered to ensure that they reach the intended stream reaches, and are not intercepted and diverted by intervening water users. This calls into question the potential benefit of this proposed mitigation.</p>	<p><i>effects. The Corps has completed modeling efforts for the Chatfield Reallocation DEIS. Denver has completed PACSM modeling that includes Chatfield Reservoir and effects of the reallocation. CDOW believes there will be cumulative effects that should be delineated in the FEIS. The Chatfield Reallocation Preliminary DEIS concludes that flows downstream may be impacted by the reallocation. Denver Water's proposal to install pumps at Chatfield Reservoir is not included in the cumulative effects analysis. Flows downstream from Chatfield Reservoir may be impacted due to Denver's proposed action and the Chatfield Reallocation Project. CDOW believes that the FEIS should fully document the cumulative impacts on stream flows of the Chatfield Reallocation Project, particularly in winter months.</i></p> <p>Response #1769-12: The EIS describes the potential cumulative effects that would result from the Moffat Project combined with other projects and activities based on NEPA and Section 404(b)(1) criteria. The regulations for implementing NEPA define cumulative impacts as the impact on the environment which results from the incremental impact of the action when added to other past, present, and RFFAs and regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from "individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). This regulation refers only to the cumulative impact of direct and indirect effects of the Proposed Action and its alternatives when added to the aggregate effects of past, present, and RFFAs.</p> <p>The Section 404 regulations state that "cumulative impacts are the changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems" (40 CFR</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
	<p>Aquatic Mitigation - West</p> <p>While flows in the Fraser River are discussed at length in the DEIS, there is no assurance of attainment of flushing flows in the future, or maintenance of adequate minimum flows. The FEIS and associated mitigation plan should reflect how these flushing flows and adequate minimum flows will be assured in the future. In addition, the FEIS and associated mitigation plan should address needed improvements in how these flows are measured, accounted for, and administered within the State's prior appropriation system. Erosion issues the proposed project could create or exacerbate should also be addressed, as should the potential loss of kokanee salmon production at Williams Fork Reservoir and potential diminution of public angling access.</p> <p>Terrestrial Mitigation</p> <p>CDOW recommends offsetting the loss of quality winter range and other habitat due to inundation, construction, and human recreation-associated disturbance. Sites within the elk severe winter range and concentration areas surrounding Gross Reservoir should receive first priority in an effort to mitigate for lost winter forage and reduce the potential for elk moving into nearby subdivisions. In addition to proximity, preference should be given to lands that are open to hunting in order to provide recreational opportunity and to facilitate meeting the CDOW's herd management objectives for elk and deer. Habitat treatments should include prescribed fire and timber thinning, but may include other measures such as seeding, fertilization or planting forage species that will benefit deer and elk. Unlike the impacts of enlarging Gross Reservoir, the positive effects of prescribed fire and thinning are not permanent; therefore, the mitigation plan should include resources for re-treatments in a rotational pattern over time.</p> <p>Thank you for the opportunity to comment on the Moffat Collection System Project DEIS. CDOW will continue to be available to the Corps to ensure that all impacts to wildlife and wildlife-related recreation associated with the proposed project are fully and accurately characterized in the FEIS. In addition, CDOW will be working with the project proponent and other stakeholders to develop a Fish and Wildlife Mitigation Plan pursuant to C.R.S. 37-60-122.2. We look forward to working with you as you move to the next step in this NEPA compliance process.</p> <p>Sincerely,</p>  <p>James D. Martin Executive Director Colorado Department of Natural Resources</p>	<p>230.11[g][1]).</p> <p>The cumulative effects analysis for the Moffat Project evaluated past and present actions that continue to influence existing environmental conditions. The cumulative effects analysis also included reasonably foreseeable actions that, when combined with one of the Project alternatives, result in a cumulative effect on the environment. For purposes of organization of the EIS, cumulative effects were evaluated in two timeframes: (1) past or ongoing present actions, and (2) future actions. Each of these two timeframes includes a discussion of water-based or land-based actions. The DEIS included a discussion of both the Rueter-Hess Reservoir Project and the Chatfield Reservoir Reallocation Project in DEIS Section 5.3 as part of the cumulative effects analysis. Rueter-Hess Reservoir is not part of Denver Water's Collection System and the reallocation of Chatfield Reservoir will not increase Denver Water's storage in Chatfield Reservoir; therefore, neither provides a supply of water to the Combined Service Area.</p> <p>Comment #1769-9 (ID 4481): <i>Appendix H-1: This appendix discusses how the flow regime would change from Current Conditions and Full Use Existing System below Chatfield Reservoir, and states that flow would be reduced by 1 1 % on an average year, 10% on a dry year, and 5% on a wet year. Flow changes below Chatfield if any of the Alternative Actions are adopted are not discussed and CDOW would like a discussion of how flows would be affected by the proposed changes.</i></p> <p>Response #1769-9: FEIS Sections 4.6.1 and 5.1 and Appendix H were revised to include a discussion of the flow changes below Chatfield Reservoir under the Moffat Project alternatives.</p> <p>Comment #1769-31 (ID 4480): <i>Table H-3.34 and Table H-3.40: These tables show flow-related changes under the proposed alternative on the North Fork of the South Platte River. The North Fork of</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>the South Platte River supports a self-sustaining brown trout fishery. The most significant limiting factor to the brown trout fishery in the North Fork of the South Platte River is overwinter pool habitat. This was caused by an increase in width-to-depth ratios when the Roberts Tunnel was built to handle additional flows brought to the North Fork of the South Platte from Dillon Reservoir. The current river channel has a bankful flow of approximately 1200 cfs and during the winter the Roberts Tunnel flows irregularly. In the proposed alternatives, flows recorded at the Geneva Creek gage in the months of November through March will be decreased on an average precipitation year by approximately 27.8%~on~ a dry precipitation year by approximately 24.4%, and on a wet precipitation year by approximately 30.4%. Roberts Tunnel diversions will be decreased by approximately 34.8 %, 27.8%, and 39.2% respectively. These proposals will limit the recruitment of the naturally reproducing brown trout in the North Fork of the South Platte River. In the summer months, the limiting factors to the brown trout fishery are high flows, low nutrient content, and low temperatures from the water diverted near the bottom of Dillon Reservoir through the Roberts Tunnel. In the proposed alternatives, flows recorded at the Geneva Creek gage in the months of May through August will be increased on an average precipitation year by approximately 17%, on a dry precipitation year by approximately 13.75%, and on a wet precipitation year by approximately 4%. Roberts Tunnel diversions will be increased by approximately 47.25%, 13.25%, and 176.75% respectively. These increases in flows will further limit fry survival and growth rates for brown trout in the North Fork of the South Platte River. The FEIS should acknowledge, and to the greatest extent possible quantify, anticipated impacts to the brown trout fishery in the North Fork of the South Platte River. CDOW intends to work with the project proponent through the state's FWMP process to develop appropriate mitigation measures to address these impacts.</i></p> <p>Response #1769-31: The DEIS and FEIS acknowledge the adverse impacts to</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>fish and invertebrate populations in the North Fork. Mitigation for any predicted impacts that could occur in the streams is included in FEIS Section 5.11.7 and Appendix M.</p> <p>Comment #1769-8 (ID 4479): <i>Flow Related Issues - West Slope Grand County has invested significant resources in recent years to study appropriate flows in the Colorado and Fraser river systems with the most current available science. This is the most thorough study of stream morphology that has been conducted in this area to date, and CDOW views the Grand County Stream Management Plan as a critical document in determining the future condition of the upper Colorado River System. We recommend that this document be taken into consideration when assessing the impacts of the MCSP, Windy Gap Firing Project and the cumulative effects of both projects.</i></p> <p>Response #1769-8: The Grand County Stream Management Plan has been reviewed and appropriate data contained therein has been incorporated into the FEIS for the following resources: water quality (Sections 3.2 and 4.6.2), geomorphology (Section 4.6.3), wetlands and riparian areas (Section 3.8), Physical Habitat Simulation (PHABSIM) data for analysis of aquatic biological resources (Sections 3.11, 4.6.11, and 5.11), and recreational flows analysis (Sections 4.6.15 and 5.15).</p> <p>Appropriate conceptual mitigation components were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required, including adaptive management for mitigation.</p> <p>Information presented in the Grand County Stream Management Plan, along with other relevant research pertaining to channel responses to diversions, effective discharge and use of various equations for sediment transport modeling was added to FEIS Section 4.6.3.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>The analysis of stream morphology was expanded to include a Phase 2 sediment transport evaluation. As part of this assessment, flows required to mobilize different particle sizes were quantified and the flow at which stream bed mobilization occurs was estimated. Results of this analysis were incorporated into an evaluation to quantify the duration, frequency and magnitude of flows exceeding the Phase 2 sediment transport threshold as well as changes to other high magnitude flood events. Changes resulting from the proposed Project were quantified. Results are provided in FEIS Sections 4.6.3 and 5.3. This evaluation does not include an assessment of pre-diversion conditions.</p> <p>Comment #1769-42 (ID 4478): <i>Section 3.13 Recreation and Section 3.17 Socioeconomics In Section 3.13, the Fraser River is described as offering "...numerous, diverse, high-quality fishing experiences. The upper tributaries that feed the Fraser River are best known for their small stream fishing opportunities." The Williams Fork River is also described as offering "...numerous, high-quality fishing opportunities. The upper reaches of the Williams Fork and its tributaries are best known for their small stream fishing opportunities." The Colorado River "...offers outstanding fishing opportunities, considered to be among the best in the state." The Blue River "...provides excellent tailwater fishing opportunities year round." Section 3.17 defines the affected socioeconomic environment within the Project Area, and touches upon Grand County, stating that 2002 expenditures for fishing trips and equipment exceeded \$12.2 million dollars. CDOW is concerned that the project may negatively impact the affected environment's capability to produce high-quality fish populations and reduce angling opportunities in rivers and streams. Further, the impacts of increased water diversions, less dilution of wastewater treatment plant effluent and reduced sediment transport capability in oversized stream channels may combine to significantly lower the quality recreational experience of the project area as stated in</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>[NOTE: THERE IS NO TEXT AFTER THIS IN THE SOURCE FILE -- PARAGRAPH STOPS HERE.]</p> <p>Response #1769-42: Impacts to the quality of the fishing experience primarily depends on the quality and health of the fisheries, which are addressed in DEIS Section 4.9.1. At most locations, the analysis of aquatic biological resources concluded that impacts to the health of the fishery would be minor or negligible. Therefore, impacts to the recreational experience would also be minor. FEIS Sections 4.6.11 and 5.11 have been reviewed and conclusions regarding the health of the fisheries, including the quality of fish, were considered for consistency in revisions to FEIS Section 5.15.1.2.</p> <p>Comment #1769-41 (ID 4477): <i>Section 3.13. CDOW would like to see a more exhaustive examination of the proposed project's impacts on wildlife-related recreation and associated impacts to the economies of local communities, especially those in Grand and Summit Counties.</i></p> <p>Response #1769-41: The analysis addresses the potential impacts on recreation as a result of the Proposed Action, focusing on activities that are water dependent. Activities such as hiking and mountain biking, which are not water dependent, are not expected to be directly affected. Impacts to the scenery of the area, which may be a component of the recreation experience, were addressed in DEIS Section 4.15.</p> <p>Comment #1769-28 (ID 4476): <i>Section 3.8 Special Status Species Page 3-197: The DEIS states that "This species (greenback cutthroat trout) was petitioned for listing as threatened, but a 12-month finding by the USFWS in 2007 determined that listing was not warranted at that time (USFWS 2007)." Actually, greenback cutthroat trout are currently listed as a threatened species by the USFWS. The cutthroat trout populations in Bobtail, Steelman, and Little Vasquez</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>creeks have been identified through genetic analysis as "Lineage GB," suggesting that these fish align most closely with greenback cutthroat trout. While there is much that remains to be sorted out regarding this finding, for the purposes of the Endangered Species Act and the Greenback Cutthroat Trout Recovery Plan, the USFWS does consider these populations to be greenback cutthroat trout.</i></p> <p>Response #1769-28: The cited sentence was removed in the FEIS. Information about Lineage Greenback populations has been added to the analysis of Special Status Species in the FEIS in both the Affected Environment (Section 3.10), and Environmental Consequences (Section 5.10).</p> <p>Comment #1769-27 (ID 4475): <i>Table G-1 and Section 3.8.2 "Conveyance Systems": The table and the discussion need to include greenback cutthroat trout presently found on the western slope. Colorado River cutthroat trout are a state species of special concern. While not a statutory designation, we believe that State designation of "species of special concern" qualifies Colorado River cutthroat trout as a special status species. This species has been repeatedly petitioned for listing by interested groups under the Endangered Species Act. This species should be listed as present within the various drainages associated with this project. The CDOW can provide information on Colorado River and greenback (Lineage GB) cutthroat trout conservation and core conservation populations.</i></p> <p>Response #1769-27: Colorado River cutthroat trout are included as a special status species in Appendix Table G-5 and in DEIS Section 3.8.5, both of which address the river segments portion of the Project area. Appendix Table G-1 only addresses East Slope facilities, and Section 3.8.2 only address East Slope pipelines, which is why Colorado River cutthroat trout are not included. Colorado River cutthroat trout were listed for the drainages where they were present in DEIS Section 3.8.5, based on Hirsch et</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>al. (2006) Range-wide Status of Colorado River Cutthroat Trout (<i>Oncorhynchus clarkii pleuriticus</i>). As part of their comments on the DEIS, the USFWS provided information on locations of greenback cutthroat trout lineage populations and this information has been included in the FEIS Sections 3.10 and 5.10.</p> <p>Comment #1769-0 (ID 4474): <i>Chapter 4 4.1 Surface Water 4-8: On February 8, 2010, the Colorado Water Quality Control Commission made recommendations to list part of Upper Colorado River Basin Segment 3 (COUCUC03), part of Upper Colorado River Basin Segment 4 (COUCUC04), and all of Upper Colorado River Basin Segment 109 (COUCUC10c) on the 303(d) list (Regulation 93; CCR 1002-93) of impaired waters for exceedances of the standards for temperature. These segments are defined in Colorado Water Quality Control Commission Regulation #33 (5 CCR 1002-33) as: COUCUC03: Portion recommended for 303(d) listing: Road 578 Bridge to confluence with Blue River. COUCUC04: Portion recommended for 303(d) listing: Ranch Creek. COUCUC10c: Mainstem of the Fraser River from a point immediately below the Hammond Ditch to the confluence with the Colorado River. Portion recommended for 303(d) listing: All. These segments were included in the Water Quality Control Commission's recommendation based on multiple exceedances of the acute (daily maximum) and chronic (maximum weekly average temperature) temperature standards set for protection of aquatic life. The DEIS notes on page 4-8 that the Colorado River near Windy Gap and the Fraser River near Fraser could experience "negligible to minor impacts to stream temperature" while Ranch Creek may experience "moderate impacts with regards to a potential increase in stream temperature". Given the documented exceedances of the temperature standards set for protection of aquatic life in these segments and the likelihood that the Colorado Water Quality Control Commission's final action on the 2010 303(d) list will result in the addition of the segments or specified reaches therein to the 303(d) list, the EIS should more thoroughly address potential impacts of the proposed project on</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>these water-quality impaired segments, specifically addressing future attainment of standards for temperature as they relate to expected hydrologic modifications. We believe that in light of 303(d) impairment listings, it is inaccurate to conclude that increased stream temperatures resulting in higher frequency of exceedance constitute negligible or minor impacts.</i></p> <p>Response #1769-0: The 2012 303(d) and Monitoring and Evaluation lists per CDPHE Regulation 93 are used in the FEIS. Additional water quality analysis was performed for the Fraser River. Please refer to FEIS Sections 4.6.2 and 5.2.</p> <p>Comment #1769-15 (ID 4532): <i>Page 4-10: PACSM's study period of 1947 through 1991 fails to utilize data from the significant drought years of 2002-2004. We believe that better model results could and should be obtained by using the full range of data available.</i></p> <p>Response #1769-15: The model study period used in the DEIS (from 1947 through 1991) provides a broad range of average, wet, and dry flow conditions for evaluating hydrologic impacts. The potential of extending the study period and/or using additional periods for comparative analyses was considered in relation to whether these alternative hydrologic inputs would change conclusions regarding the yield of the Moffat system and/or change conclusions related to effects on hydrologic and other resource areas. With regard to inclusion of more recent hydrology, Denver Water would not divert additional water due to the proposed Moffat Project in drought years like 2002 because Denver Water would have already diverted the maximum amount of water physically and legally available under their existing water rights without additional storage in their system. Denver Water's analysis also concluded that, for Denver Water's system, the mid-1950's drought is a more severe drought period than the recent drought. In other words, given full-use water demands, supplies, and facilities, there would be less water in Denver Water's</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>storage at the end of the 1950's drought than at the end of 2002. The model study period used in the DEIS also addressed the carry-over and recovery effects of additional Denver Water diversions in wet years following dry years like 2002 and 2003. The DEIS study period includes several series of dry years followed by wet years, which illustrate the effects of increased diversions to refill storage. For example, the DEIS study period includes the mid-1950's drought followed by 1957 (a wet year), 1963 and 1964 (dry years) followed by 1965 (wet year), and 1981 (dry year) followed by several wet years in the mid-1980s. These sequences of years allow for an evaluation of impacts associated with diverting additional water in wet years following dry years.</p> <p>The model study period is suitable for estimating hydrologic effects associated with the EIS alternatives for both direct effects and cumulative effects because it includes a broad range of average, wet, and dry years, and sequences of years that include dry years followed by wet years. Extension of the modeling period to include additional dry years would not substantially change the range of hydrologic conditions or the predicted impacts to flows as a result of the proposed Moffat Project. In summary, modifications to the model study period is not warranted.</p> <p>Comment #1769-14 (ID 4531): <i>Pages 4-51-59: In multiple locations throughout the DEIS a statement appears that the sediment transport capacity of the Fraser River under the Proposed Action will remain "orders of magnitude greater than the sediment supply." We believe the Fraser River has a major problem with sediment transport in certain locations. In particular, upstream of the Vasquez Creek confluence a massive quantity of highway sand has created aggradation, embedded the substrate, and otherwise negatively impacted the aquatic habitat. We believe that we have seen the results of these problems in the biological community of the stream (discussed further below). We would like Denver to more fully evaluate sediment</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>transport within this reach.</i></p> <p>Response #1769-14: The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic data, sensitivity analysis of sediment supply and sediment transport equations and an assessment of Phase 2 sediment transport. Impacts of traction sand on the Fraser River were included in the assessment. Analyses of the existing systems are provided in FEIS Section 3.3 of the FEIS. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>Comment #1769-40 (ID 4530): <i>Page 4-27: The DEIS discusses water level changes in Williams Fork Reservoir. This lake serves as an important egg source to sustain kokanee salmon fisheries throughout the state. Kokanee form a critical link in the food chain of our coldwater reservoirs and are extremely popular with anglers. The DEIS states ". . .additional exports from the basin would occasionally result in substantially lower late summer reservoir contents ..."</i> <i>Based on our past experience with kokanee spawning behavior in the lake, this is a concern to the CDOW. CDOW fishery biologists have seen lower lake levels inhibit the movement of the kokanee into the Williams Fork inlet stream, reducing the availability of eggs for CDOW's spawning operation. In addition to impacts on kokanee spawning operations, lower water levels in Williams Fork Reservoir have the potential to affect other sport fish species in the lake. When the lake was drawn down to extremely low levels during the drought conditions of 2002 and 2003, we observed a major decline in lake trout, northern pike, rainbow and brown trout populations which are only now recovering. If the implementation of this project results in a greater likelihood or frequency of major drawdowns similar to</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>drought conditions, the result is likely to be significant and recurring negative impacts to the sport fishery in the reservoir.</i></p> <p>Response #1769-40: The DEIS and FEIS discuss changes in Williams Fork Reservoir levels with the Project and the potential impacts to fish habitat and fish populations. In most years, there would be more water in the reservoir with a Project compared to Current Conditions. Therefore, beneficial impacts to fish would occur in most years compared to current reservoir levels.</p> <p>Comment #1769-38 (ID 4529): <i>Page 4-28: The description of effects to Dillon Reservoir water levels is that the reservoir would spill less during the summer months. The appendices dealing with Dillon Reservoir effects do not include a category projecting the number of anticipated days of surface spill to the Blue River. CDOW would like to see that information included in the FEIS. The Blue River below Dillon Reservoir through the town of Silverthorne supports a highly valuable gold-medal trout fishery. Despite the high quality of the fishery, the Blue River has a low level of productivity, marked by slow growth of trout. Temperature monitoring has shown that this reach of river often does not enter the optimum temperature range for feeding and growth of trout (12-18 degrees C) unless water is spilling off the surface of Dillon Reservoir. We believe that cold water temperatures are probably the single most important limiting factor to this tailwater fishery. Fewer total days of surface spill from Dillon Reservoir would likely reduce the productivity in this reach of river. The DEIS should acknowledge this impact. CDOW intends to discuss with the project proponent the feasibility of retrofitting the outlet works on Dillon Dam to allow for water from multiple levels of the reservoir to be released when the reservoir is not spilling, thus allowing for a longer period of time annually when water temperatures are within the optimum feeding and growth range for trout.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Response #1769-38: The temperature of the portion of the Blue River downstream of Dillon Dam, including spilled water, has historically been well within stream standards as listed in Regulation 33 (CDPHE) and significant changes in temperature in Dillon Reservoir are not anticipated. FEIS Sections 4.6.1 and 5.1 have been revised to include information on the change in the number of days of surface spilling from Dillon Reservoir. This information on spill frequency and the resulting effects on aquatic resources was also incorporated into FEIS Sections 4.6.11 and 5.11</p> <p>Denver Water does not have any plans to retrofit the outlet works at Dillon Dam to include a multiple level outlet structure.</p> <p>Comment #1769-39 (ID 4528): <i>4.9 Aquatic Biological Resources Page 4-315: The Fraser River within and above the Town of Winter Park supports a unique wild brook trout fishery. At the Confluence Park population monitoring station, which appears to overlap at least partially with the IFIM site for Segment 1, brook trout have comprised an average of 72% of the total trout catch over the past three sampling occasions (2006,2007, and 2009). Average biomass for brook trout greater than 5.9 inches in this reach over these three sampling occasions was 53 pounds per acre. CDOW considers this a quality wild brook trout fishery, which is rare in this area. Accordingly, CDOW believes that fry and juvenile life stages of brook trout should be included in the IFIM analysis. CDOW is concerned that the highest upstream IFIM analysis segment on the Fraser River is below the confluence with Vasquez Creek. The brook trout population above the Vasquez Creek confluence becomes sparse, even for a typical mountain stream. Our 2007 surveys (two stations) above the confluence found fish larger than 5.9 inches exceedingly rare. At the station where the Fraser passes beneath Highway 40, the size distribution and density of brook trout was very poor for the area. Based on these observations, CDOW believes that above the Vasquez creek confluence the brook trout</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>population is being limited by an as-yet-unknown factor, and that IFIM analysis on this reach of river should be an important element of this section in the FEIS. Mottled sculpin (Cottus bairdi) are abundant in the Fraser River below the confluence with Vasquez Creek. This is a native species which fulfills an important ecological function by providing prey base for larger trout to exploit and grow to sizes beyond what would be allowed by an exclusively invertebrate prey base. On the last three sampling occasions in the Confluence Park reach the total catch of sculpin averaged 102 fish. Sampling on the Fraser above the Vasquez Creek confluence failed to find even one sculpin. The absence of sculpin indicates a major ecological change over a short geographical area. CDOW believes that discussion of the habitat needs, population status, limiting factors, or ecological function of this species should be included in the FEIS.</i></p> <p>Response #1769-39: The available PHABSIM information for the Fraser River in the DEIS and FEIS from past data sources does not include the younger life stages of brook trout. A site in this section of the river from the Grand County Stream Management report also does not include the younger life stages. Impacts to the younger life stages of brook trout were evaluated with professional judgment in FEIS Sections 4.6.11 and 5.11. An expanded discussion of the distribution of sculpins in the Project area is included in FEIS Section 3.11.</p> <p>Comment #1769-37 (ID 4527): Page 4-313: The first full paragraph contains a discussion of benthic invertebrates reading "In this analysis, impacts on these benthic invertebrate community parameters were evaluated . . ." This is the first time that benthic invertebrates are discussed in this section, and so it is unclear what parameters are being referred to. The previous paragraph discusses fish egg incubation and dewatering. It appears there may have been information mistakenly omitted between the two paragraphs. Also, there are several statements made in this paragraph regarding benthic invertebrate habitat needs with no</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>supporting documentation. CDO W believes the quality of this analysis could be improved by including references to studies which support the claims that are made in this paragraph.</i></p> <p>Response #1769-37: This error in the DEIS has been revised in FEIS Section 5.11.</p> <p>Comment #1769-36 (ID 4526): <i>Page 4-324: The discussion of impacts to the aquatic biological resources on the Colorado River is inadequate. In the years since the original Windy Gap project was built, the reach of river downstream from the Windy Gap diversion has seen major ecological changes that were never predicted by the original Windy Gap EIS. These include a severe decline in the stonefly Pteronarcys californica, the most important invertebrate trout food source in the river, and of mottled sculpin. CDOW believes that these changes may be related to a lower frequency, intensity, and duration of flushing flows. Dissolved oxygen levels and the impacts of river icing may also be implicated. It is reasonable to anticipate these problems to correlate with increased diversions occurring in the future. While the Moffat project will not account for the largest quantity of water being diverted in the future from the Colorado River, it will contribute a significant amount to the reduction in high flows. CDOW believes these impacts need to be cumulatively assessed and presented in the FEIS.</i></p> <p>Response #1769-36: The DEIS did not evaluate the Colorado River in depth because the flow changes would be much less than 10% on an annual basis and impacts to the resources listed in this comment were unlikely. However, the FEIS has been modified to include the Colorado River as a focus reach with expanded discussion of existing conditions and impacts evaluation in Sections 3.11, 4.6.11, and 5.11.</p> <p>The CPW report (Nehring 2010) discussing sculpins and Pteronarcys was released after the DEIS was completed.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>The Corps is aware of the Nehring report and it has been included in FEIS Section 5.11.</p> <p>Comment #1769-35 (ID 4525): <i>General Issues The DEIS does not include any analysis of the subject of entrainment of fish into the Moffat Collection System. This is a concern, particularly with respect to the tributaries which contain Lineage-GB cutthroat trout. Based on CDOW's experiences with diversion structures in general, we believe that there is some amount of entrainment and loss of fish into the system. It stands to reason that additional losses through entrainment would occur with additional diversions in the system. The FEIS should acknowledge this as an impact to both special status species, and aquatic biological resources in general.</i></p> <p>Response #1769-35: The extent that the diversion structures would entrain individual cutthroat trout would not change appreciable with the additional diversion of water with the Project. These cutthroat populations have obviously sustained themselves for decades since the diversions were first installed with the diversions functioning as they have in the past. The additional diversions during a few months in some of the wetter years should not affect the ability of the populations to continue to sustain themselves.</p> <p>Comment #1769-34 (ID 4524): <i>The DEIS notes that cutthroat trout have been found below the Moffat Collection System diversion structures in multiple locations (e.g. Cabin Creek, Bobtail Creek, etc.). The presence of these fish below diversion structures suggests that these fish may constitute functioning portions of the population. However there is no discussion regarding the extent of these impacts to these fish in the DEIS.</i></p> <p>Response #1769-34: FEIS Section 3.11 has been revised to include a discussion of cutthroat trout downstream of the</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>diversions.</p> <p>Comment #1769-33 (ID 4523): <i>Rates of change in flow at the diversion structures are not discussed in the DEIS. CDOW personnel, along with USFS personnel and members of the general public, have commonly observed stranded fish downstream of diversion structures in the Moffat Collection System. Stranding of fish typically occurs in streams when flow rates change drastically downward in a short period of time. We view the loss of these fish as an impact of the current system as it is presently operated, and likely an additional impact if the project is implemented with additional diversions occurring. Therefore, the FEIS should include analysis and discussion of the impacts of changes in flow rates below certain diversion structures in the Moffat Collection System, including the estimated magnitude of these impacts based on the frequency with which flow rates are expected to drop so precipitously as to possibly strand fish.</i></p> <p>Response #1769-33: The operation of the diversions likely would not change with respect to changes in rates of flow. The changes would affect the duration and total magnitude of flow diverted, but stranding would likely be similar to existing conditions with Project implementation. FEIS Sections 3.11, 4.6.11, and 5.11 have been revised to include this issue.</p> <p>Comment #1769-23 (ID 4522): <i>Terrestrial Issues - East Slope Chapter 3 3.7 Wildlife 3-169: Enlargement of Gross Reservoir will have impacts on terrestrial habitat and wildlife in the surrounding area due to noise and disturbance from on-site construction and quarrying activities, concrete production, erosion, creation of new roads, spoil, and staging areas, removal of vegetation, and inundation of tree, shrub, riparian and wetland habitats. Inundation of additional stretches of South Boulder Creek above Gross Reservoir and the narrowing of the canyon in this area may affect movement of elk and deer in the vicinity of the town of Pinecliffe. The</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>proposed project will impact the area immediately surrounding Gross Reservoir the most and will somewhat alter flows in South Boulder Creek. CDOW will explore with the project proponent how to minimize impacts to wildlife and habitat by concentrating the majority of the East Slope impacts to a single site.</i></p> <p>Response #1769-23: CPW's information about effects to movement of deer and elk near Pinecliffe has been added to the wildlife analysis in the FEIS (Section 5.9) along with additional discussion of impacts to elk and deer migration.</p> <p>Please also see the response to Comment ID 4511.</p> <p>Comment #1769-21 (ID 4521): <i>Elk and Deer Page 3-169: Gross Reservoir currently provides habitat for elk and mule deer year-round, and is especially important during winter conditions. Lands west of the reservoir have been designated as elk winter concentration areas and severe winter range. Vegetation along the shoreline is largely forest cover containing ponderosa pine and Douglas-fir. All trees would be removed between the normal pool elevation (7,282 feet) and 7,410 feet, which is 10 feet above the 72,000 acre-feet expansion elevation contour. The removal of shoreline vegetation and the potential change of use may force deer and elk to adjacent private lands, potentially increasing CDOW's obligations under its statutory responsibilities for game damage compensation. Additionally management of nuisance wildlife issues and public safety continues to be a CDOW priority. Hunting is the primary tool for managing herd size. In areas of Boulder County near Gross Reservoir closure of lands that have traditionally been open to hunting could make it more difficult to achieve adequate harvest of big game. Therefore, CDOW feels it is essential to maintain hunting on public lands in this area. During the construction phase, CDOW intends to work with the project proponent to develop options to minimize construction phase impacts to the elk and deer herds in the area. Future management of the elk and deer herds are likely to</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>require additional discussions as additional information is developed on herd response to changes created by the proposed project, and CDOW looks forward to cooperating with Denver Water on these issues.</i></p> <p>Response #1769-21: CPW's information about potential displacement of big game to private lands, responsibilities for game damage compensation and use of hunting for management has been added to the analysis of wildlife in FEIS Section 5.9.1.</p> <p>Please also see the response to Comment ID 4511.</p> <p>Comment #1769-20 (ID 4520): <i>Raptors, Sensitive Species and Birds Page 3-171: The area around Gross Reservoir provides raptor habitat, including nesting and hunting sites for birds of prey. Raptors are sensitive to human intrusion, especially at nest sites. Bald eagles and Northern Goshawks have the potential to occur at Gross Reservoir, but no nests are currently known. Vegetation around Gross Reservoir provides quality habitat for game birds including dusky grouse and wild turkeys, as well as a variety of songbirds such as the mountain chickadee, northern flicker and Steller's jay. Patches of dead ponderosa pines on the west side of the reservoir provide good habitat for cavity nesting birds. Other special status species likely to inhabit the area include the peregrine falcon and Townsend's big-eared bat. CDOW intends to work with the project proponent to develop options to minimize impacts during the construction phase and beyond to raptors and other bird species that inhabit the area.</i></p> <p>Response #1769-20: In addition to wildlife already discussed in the DEIS and FEIS, osprey and bald eagle have been added to the list of raptors known or likely to occur at Gross Reservoir (FEIS Table 3.9-1).</p> <p>Please also see the response to Comment ID 4511.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Comment #1769-43 (ID 4519): <i>Hunting, Fishing and Other Recreation 3.13.1.1 Gross Reservation Recreation 3-275: Hunting is not mentioned as a recreational resource in this section. As surrounding areas have developed and hunting closures have been implemented by the City of Boulder, United States Forest Service land surrounding Gross Reservoir has become increasingly important in providing a place for hunters to harvest game species. Hunting and fishing are traditional outdoor recreational activities enjoyed throughout Colorado. Hunting is also essential in managing wildlife populations at proper levels to protect habitat and reduce nuisance and game damage issues. Through leases and other arrangements, hunting provides economic benefit to private land owners and the local economy. As Colorado's population increases, the opportunity to provide additional access to stream and lake recreational fisheries, especially in close proximity to major metropolitan areas is increasingly important. Additional sites for bird observation and other wildlife related outlets are also essential for continuing public interest in effective resource management. The FEIS should include a more thorough discussion of the degree to which the proposed project will affect wildlife-related recreation.</i></p> <p>Response #1769-43: An expanded discussion of wildlife-related recreation surrounding Gross Reservoir is included in FEIS Section 3.15.1.1.</p> <p>Comment #1769-16 (ID 4518): <i>Terrestrial Issues - West Slope Chapter 3 3.7 Wildlife Page 3-186: Moose and elk are not mentioned as a species that would be impacted along the river segments. Moose are known to occur within the majority of the tributaries within the Fraser and Williams Fork drainages. Elk use the higher elevation willow complexes during the summer for nursery areas and would therefore be impacted by the higher elevation diversions. The FEIS should be revised to reflect how and to what extent moose and elk in the Fraser and Williams Fork drainages could be affected by the proposed project.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Response #1769-16: An analysis of elk and deer impacts on the river segments has been added to the wildlife analysis in the FEIS Section 5.9.</p> <p>Comment #1769-24 (ID 4516): <i>3.8 Special Status Species Page 3-195: The Affected Environment Chapter relating to special status species lacks information on certain species and the available data for other species is incomplete. Lynx, state endangered and federally threatened species, should be included as a species of special status within the FEIS. Lynx utilize riparian habitat in the summer hunting for snowshoe hare. Lynx are known to occur within the forested habitats within the project area, specifically the Fraser, Williams Fork and Blue River drainages. Peregrine falcons, a state species of concern, are known to breed and forage along the Colorado River near the town of Hot Sulphur Springs and a pair has been seen perching and foraging near Green Mountain Reservoir.</i></p> <p>Response #1769-24: Please see the response to Comment ID 4515.</p> <p>Comment #1769-30 (ID 4514): <i>Page 3-202: Data used to describe river otter, bald eagle and boreal toad distributions within the river segments of the project area are insufficient. River otter are known and documented along the Fraser River, Colorado River and Williams Fork drainages. CDOW has collected numerous river otter road kill specimens throughout Grand County, specifically along Hwy 40 near the town of Tabernash and Hot Sulphur Springs, and along County Road 3 in the Williams Fork drainage. In addition, CDOW personnel have been conducting annual river otter surveys along the Fraser, Colorado, Muddy, Blue and Williams Fork drainages. Otter use has been identified in all of these drainages. Otters have been documented as far upstream as the Kinney Creek confluence in the Williams Fork drainage.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Response #1769-30: This information on river otter, bald eagle, and boreal toad distributions, has been added to FEIS Section 3.10.</p> <p>Comment #1769-25 (ID 4513): <i>Page 3-203: Boreal toads do occur within the Williams Fork drainage including the vicinity of the Bobtail, Steelman and McQueary Creek area. A known breeding site is located on the Williams Fork below the diversions of the confluence of the 3 upstream drainages. It is mentioned that Colorado Natural Heritage Program (CNHP) monitors and surveys boreal toad sites in Colorado, and while CNHP does assist with monitoring, the CDOW is responsible for monitoring and tracking of boreal toad breeding sites. The CDOW and U.S. Forest Service (USFS) are the responsible monitoring entities in the Fraser and Williams Fork drainages.</i></p> <p>Response #1769-25: The information on boreal toad in the Williams Fork River has been updated to include this and other new information.</p> <p>Comment #1769-26 (ID 4512): <i>Page 3-204: In relation to the information reported on bald eagles there is an active nest near Parshall, CO. There is also an active nest between Windy Gap and Hot Sulphur Springs, and two additional active nests downstream of Green Mountain Reservoir. These eagles forage along the affected river segments of the Colorado and Blue Rivers.</i></p> <p>Response #1769-26: This information has been added to FEIS Section 3.10.</p> <p>Comment #1769-22 (ID 4511): <i>Chapter 4 Page 4-275: CDOW disagrees with the statement that changes in river flow would not have a noticeable impact on wildlife habitat or wildlife species, because there would be minor impacts to riparian habitat with flow changes. This statement is made repeatedly throughout the document. Although it is difficult to predict</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>how much of an impact will occur, we do believe that the decrease in stream flow and the potential impacts on riparian communities could affect all species that utilize the riparian corridor: beaver, boreal toads, river otters, passerine birds, waterfowl, muskrat, lynx and moose. CDOW supports the idea of an adaptive mitigation plan to assess how the proposed changes impact wildlife species and wildlife habitat and intends to discuss with the project proponent how such an adaptive approach can be developed as part of the state mitigation planning process.</i></p> <p>Response #1769-22: The Corps conducted additional field surveys for the FEIS in the summer of 2010 based on feedback from the USFS and the EPA. The analysis of impacts to wildlife along the river segments has been rewritten and expanded in FEIS Section 5.9.1.2 based on these surveys. The Corps coordinated with the USFWS and CPW regarding the Fish and Wildlife Coordination Act and C.R.S. 37-60-122.2., including participation in State Wildlife Commission Workshops regarding Project effects on wildlife and recommended mitigation measures. This information is summarized in the Fish and Wildlife Coordination Act Report located in FEIS Appendix G. It would have been premature to include the Fish and Wildlife Coordination Act Report in the DEIS because the Corps had not yet received feedback from the USFWS and CPW. The Fish and Wildlife Mitigation Plan (pursuant to C.R.S. 37-60-122.2) was developed by Denver Water and adopted by the Colorado Wildlife Commission on June 9, 2011 and by the CWCB on July 13, 2011.</p> <p>Comment #1769-18 (ID 4510): <i>Page 4-295: River otters occur within the Williams Fork River drainage. Boreal toads do occur, not "may occur", along the Fraser and Williams Fork rivers.</i></p> <p>Response #1769-18: These changes have been incorporated into FEIS Sections 3.10 and 5.10.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Comment #1769-53 (ID 4509): <i>Mitigation We are pleased to see the concepts of performance standards, monitoring requirements, long-term management and adaptive management all discussed in the draft proposed mitigation plan (Appendix M). Biological systems consist of highly complex and unpredictable interactions among species, populations and their environment, and no amount of modeling or prediction can determine exactly what conditions will be present in the future. The CDOW is interested in partnering with the project proponent and any other interested parties in an effort to engage in a long-term adaptive mitigation plan. CDOW looks forward to discussing these and other ideas with the project proponent and the Corps as we move towards finalizing the Fish and Wildlife Mitigation Plan and presenting it to the Colorado Wildlife Commission and Colorado Water Conservation Board, pursuant to requirements of C.R.S. 37-60-122.2. The remainder of these comments regarding mitigation highlight issues CDOW believes should be addressed through the mitigation planning process mandated by state law.</i></p> <p>Response #1769-53: The Corps consulted with USFWS and CPW to ensure compliance with wildlife protection regulations (e.g., Endangered Species Act, Fish and Wildlife Coordination Act, Migratory Bird Act) and by identifying appropriate mitigation measures to minimize and avoid impacts to wildlife. Pursuant to C.R.S. 37-60-122.2, Denver Water submitted a Fish and Wildlife Mitigation Plan to the Colorado Wildlife Commission on June 9, 2011, and the CWCB on July 13, 2011; both agencies adopted the Fish and Wildlife Mitigation Plan.</p> <p>Comment #1769-50 (ID 4508): <i>Aquatic Mitigation - East Localized bed and bank erosion are identified as impacts to South Boulder Creek and the North Fork of the South Platte River. The described mitigation does not identify monitoring, mitigation or adaptive management for these potential impacts. Any</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>proposed in-stream and/or riparian habitat improvement projects should be monitored to ensure that local erosion does not compromise the integrity and function of habitat structures. Denver Water should be responsible for any future maintenance of habitat structures that may be required.</i></p> <p>Response #1769-50: Appropriate conceptual mitigation components, including monitoring of bank stability, were incorporated into the FEIS (see Appendix M) and, if a Section 404 Permit is issued for the Moffat Project, mitigation will be evaluated and required.</p> <p>Comment #1769-49 (ID 4507): <i>The described mitigation does not indicate how implementation of proposed mitigation will be phased relative to the completion of an expanded Gross Reservoir. Mitigation goals and milestones should be established and be tied directly to Denver's ability to store additional water.</i></p> <p>Response #1769-49: A specific mitigation implementation plan would be developed by Denver Water during final design. To the extent possible, mitigation would occur simultaneously with construction activities. Denver Water would be responsible for success criteria and to the extent that mitigation did not perform as designed, Denver Water would be responsible for modifying or repairing mitigation projects.</p> <p>Comment #1769-59 (ID 4506): <i>Angling at Gross Reservoir is maintained by the stocking of rainbow trout, lake trout, splake, brown trout, tiger muskie, and kokanee salmon. Although populations of brook and brown trout are self-sustaining in South Boulder Creek upstream of Gross Reservoir, abundance in the reservoir is relatively low. Approximately 76,000 fish of various trout and salmon species and sizes are stocked annually into Gross Reservoir. The enlargement of Gross Reservoir would indeed provide more habitat for fish,</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>however salmonid stocking rates would need to nearly triple in order to maintain current populations or fulfill a "moderate beneficial impact" as described in the DEIS. CDOW is concerned that the ability to provide the necessary additional fish species and sizes to achieve a moderate beneficial impact is lacking under our current cold water hatchery operational capacity.</i></p> <p>Response #1769-59: The Corps coordinated with the USFWS and CPW regarding the Fish and Wildlife Coordination Act and C.R.S. 37-60-122.2., including participation in State Wildlife Commission workshops regarding Project effects on wildlife and recommended mitigation measures. This information is summarized in the Fish and Wildlife Coordination Act Report located in FEIS Appendix G. The Fish and Wildlife Mitigation Plan (pursuant to C.R.S. 37-60-122.2) was developed by Denver Water and was adopted by the Colorado Wildlife Commission on June 9, 2011, and by the CWCB on July 13, 2011.</p> <p>Comment #1769-48 (ID 4505): <i>Current regulations at Gross Reservoir limit surface water access to hand propelled watercraft which must be carried to the water's edge. Under the proposed action the surface acreage of Gross Reservoir will substantially increase. Such action will moderately benefit shoreline anglers but severely limit access to substantial portions of the reservoir. The use of electric motors should be considered to provide recreation users increased recreational benefit.</i></p> <p>Response #1769-48: Motorized boating is not currently allowed at Gross Reservoir pursuant to the Federal Energy Regulatory Commission (FERC) Gross Reservoir Recreation Management Plan and Denver Water is not proposing to modify the current limitations on watercraft at Gross Reservoir.</p> <p>Comment #1769-54 (ID 4504): <i>Denver Water proposes mitigation to offset "potential</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>minor decreases in available habitat for brown trout and minor adverse effects to benthic invertebrates." Aquatic habitat improvements including pool enhancement, boulder placement, and grade control are proposed in the North Fork of the South Platte River. Although habitat improvements are effective in reversing limiting factors to brown trout fisheries, simple pool enhancement, boulder placement, and grade control measures will not effectively mitigate the limiting factors to the brown trout fishery in the North Fork of the South Platte River on a year round basis due to the described changes in flows. CDOW looks forward to discussing efficacious aquatic habitat improvement mitigation practices on the North Fork of the South Platte River with the project proponent.</i></p> <p>Response #1769-54: The Corps notes the comment.</p> <p>Comment #1769-47 (ID 4503): <i>Denver Water's proposed detailed aquatic habitat improvement plan should be reviewed by CDOW prior to its inclusion in the Final Mitigation Plan. The plan should include provisions for project monitoring and maintenance after a project completion. The scale and reach of proposed improvements are unclear.</i></p> <p>Response #1769-47: The Fish and Wildlife Mitigation Plan (pursuant to C.R.S. 37-60-122.2) was developed by Denver Water and was adopted by the Colorado Wildlife Commission on June 9, 2011, and by the CWCB on July 13, 2011.</p> <p>Comment #1769-52 (ID 4502): <i>Denver Water has also recently discussed a mitigation proposal for the Moffat Collection System Project with local City and State governmental agencies, which would involve creating 5,000 acre-feet of "Additional Environmental Storage" at Gross Reservoir, to be released only for environmental purposes. The environmental pool would be filled with water rights owned by Boulder and Lafayette, and would allow for the carryover of water from one year to the next. This water</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>would be released appropriately to provide minimum in-stream flows to South Boulder Creek. It is not clear whether Environmental Storage releases from Gross Reservoir will be decreed for instream flow purposes. Therefore, it is also unclear whether the releases will be administered to ensure that they reach the intended stream reaches, and are not intercepted and diverted by intervening water users. This calls into question the potential benefit of this proposed mitigation.</p> <p>Response #1769-52: The proposed Environmental Pool would provide a minimum flow of approximately 5 to 7 cubic feet per second (cfs) from Gross Dam to the confluence of South Boulder Creek. This water would not be available for diversion by water right holders below Gross Dam as it would be a delivery of water from Gross Dam to the cities of Boulder and Lafayette. Additionally, Denver Water is required by its FERC license to pass at minimum flow of 7 cfs, or the natural inflow (whichever is less) on a year-round basis from Gross Dam. These delivers of water would be administered under Colorado water law by the SEO.</p> <p>Comment #1769-51 (ID 4501): <i>Aquatic Mitigation - West While flows in the Fraser River are discussed at length in the DEIS, there is no assurance of attainment of flushing flows in the future, or maintenance of adequate minimum flows. The FEIS and associated mitigation plan should reflect how these flushing flows and adequate minimum flows will be assured in the future. In addition, the FEIS and associated mitigation plan should address needed improvements in how these flows are measured, accounted for, and administered within the State's prior appropriation system. Erosion issues the proposed project could create or exacerbate should also be addressed, as should the potential loss of kokanee salmon production at Williams Fork Reservoir and potential diminution of public angling access.</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Response #1769-51: Denver Water has committed to providing environmental flows and considerable system flexibility to provide flushing flows in the Fraser River, St. Louis Creek, Vasquez Creek, and Ranch Creek. Denver Water has also committed to forgo diversions when stream temperatures associated with low flow conditions are elevated. Refer to FEIS Appendix M for a description of the proposed mitigation measures including a plan to monitor bank instability.</p> <p>FEIS Appendix H shows the projected change in elevation at Williams Fork Reservoir to be 1 foot or less as a result of the proposed Project when compared to Full Use of the Existing System and in many years there would be more water in the reservoir. Therefore, the Corps believes the impact to kokanee salmon would be negligible to slightly beneficial.</p> <p>The Moffat Project is not anticipated to create erosion issues along the Fraser River.</p> <p>Denver Water is not proposing any changes to fishing access as a result of the Project. Gross Reservoir would still be open to shoreline fishing and a new trail system would be established to allow access at Gross Reservoir.</p> <p>Comment #1769-58 (ID 4500): <i>Terrestrial Mitigation CDOW recommends offsetting the loss of quality winter range and other habitat due to inundation, construction, and human recreation-associated disturbance. Sites within the elk severe winter range and concentration areas surrounding Gross Reservoir should receive first priority in an effort to mitigate for lost winter forage and reduce the potential for elk moving into nearby subdivisions. In addition to proximity, preference should be given to lands that are open to hunting in order to provide recreational opportunity and to facilitate meeting the CDOW's herd management objectives for elk and deer. Habitat treatments should include prescribed fire and timber</i></p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p><i>thinning, but may include other measures such as seeding, fertilization or planting forage species that will benefit deer and elk. Unlike the impacts of enlarging Gross Reservoir, the positive effects of prescribed fire and thinning are not permanent; therefore, the mitigation plan should include resources for re-treatments in a rotational pattern over time.</i></p> <p>Response #1769-58: Winiger Ridge would be used as a staging area for tree removal. The main access points would include SH 72, Gross Dam Road, and across Winiger Ridge using Forest Road 359 and County Road 68. Winiger Ridge is used by elk as severe winter range and winter concentration area, but is not identified as elk calving habitat (see DEIS Figure 3.7-2). Additionally, the proposed Project would inundate only the edges of Winiger Ridge and the majority of habitat would remain intact. Tree removal would be concurrent with other construction activities and would not take place during winter months. Additional information has been added to the FEIS regarding the elk migration corridor near Gross Reservoir. An analysis of displacement effects to elk during construction has also been added to the wildlife analysis in FEIS Sections 3.9 and 5.9.</p> <p>In 2010, Denver Water and the USFS announced a plan to equally share an investment of \$33 million over a five-year period, for restoration projects on more than 38,000 acres of National Forest lands. Recent wildfires and the State's 3 million acres of pine beetle-infested forests have emphasized the need to protect forest health. This partnership will accelerate and expand the USFS' ability to restore forest health in watersheds critical for Denver Water's water supplies and infrastructure. Forest thinning and other wildfire fuels reduction projects will take place around and upstream of Denver Water reservoirs. Restoration also will help the forests become more resistant to future insect and disease, reduce wildlife risks and maintain habitat for fish and wildlife. Refer to FEIS Appendix G for a description of the Forests to Faucets Partnership and other cooperative efforts.</p>

Comment-Response Report (State)

Comment Information	Comment	Comments and Responses
		<p>Comment #1769-1 (ID 4499): <i>Thank you for the opportunity to comment on the Moffat Collection System Project DEIS . CDOW will continue to be available to the Corps to ensure that all impacts to wildlife and wildlife-related recreation associated with the proposed project are fully and accurately characterized in the FEIS. In addition, CDOW will be working with the project proponent and other stakeholders to develop a Fish and Wildlife Mitigation Plan pursuant to C.R.S. 37-60- 122.2. We look forward to working with you as you move to the next step in this NEPA compliance process.</i></p> <p>Response #1769-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p> <p>Comment #1769-19 (ID 4517): <i>Table 3.7 and Table G5 in Appendix G I : These need to include moose and elk.</i></p> <p>Response #1769-19: An analysis of moose and elk impacts on the river segments has been added to the FEIS Sections 4.9, and they have been included in FEIS Table 3.9-8. Moose and elk are not classified as special status species and therefore were not included in Appendix Table G-5.</p> <p>Comment #1769-29 (ID 4515): <i>Table G2 in Appendix G-1: These need to include lynx and peregrine falcon.</i></p> <p>Response #1769-29: Lynx and peregrine falcon have been added to FEIS Appendix G, Table G-2.</p>

Comment-Response Report (State)

References

- Hirsch, C.L., S.E. Albeke, and T.P. Nesler. 2006. Range-Wide Status of Colorado River Cutthroat Trout (*Oncorhynchus clarkia pleuriticus*): 2005. Colorado River Cutthroat Trout Conservation Team Report. March.
- Nehring, R.B. 2010. Whirling Disease Investigations. Colorado Department of Natural Resources, Division of Wildlife. Federal Aid Project F 237R 17, Fort Collins, Colorado.
- United States Army Corps of Engineers (Corps). 2007. Alternatives Screening Report, Moffat Collection System Project. U.S. Army Corps of Engineers Omaha District. August.
- United States Environmental Protection Agency (EPA). 1994. General Conformity Guidance: Questions and Answers. Office of Air Quality Planning and Standards (MD-15). July 13.

Comment-Response Report (State)

This page intentionally left blank

Strong Support Form Letters

Comment-Response Report (Strong Support Form Letters)

Comment Information	Comment	Comments and Responses
STRONG SUPPORT FORM LETTER — STANDARD		
<p><i>[The Strong Support Standard Form Letter shown here on page 1 was submitted by all the commenters listed below.]</i></p> <p>Comment #1118 Ronald K. Abo, [REDACTED]</p> <p>Comment #1119 illegible illegible [REDACTED]</p> <p>Comment #1120 Fred Baker [REDACTED]</p> <p>Comment #1121 Ross Welsing, [REDACTED]</p>	<p>March 4, 2010</p> <p>Mr. Scott Franklin, Moffat, EIS Project Manager Corp Denver Regulatory Office 9307 S. Wadsworth Blvd Littleton, CO 80128</p> <p>Subject: Comments on the Moffat collection System Project</p> <p>Dear Mr. Franklin:</p> <p>I am writing to express our strong support for the expansion of Gross Reservoir which will provide a reliable and adequate water supply for existing and future residents. A reliable water supply is an essential ingredient to our quality of life, without which population growth will be limited, businesses will close and economic opportunity will be stifled.</p> <p>Denver Water's collection system is comprised of the Moffat Collection System (MCS) or North System, and the South system. The MCS, which includes Gross Reservoir, has existing water demands that can exceed available supplies during a drought. We understand that during a severe drought, such as occurred in 2002, the Moffat Water Treatment Plant has a significant level of risk of running out of water.</p> <p>The proposed Gross Reservoir expansion was chosen from an analysis of more than 300 potential water supply sources and infrastructure components that were screened during the initial phase of the Environmental Impact Statement process. This is the preferred water supply solution for our region. Without expanding the reservoir, Denver Water in drought years could be unable to meet its contractual commitments to customers served by the North System. Furthermore, Denver Water will begin experiencing a shortfall in supply beginning in 2016 and growing by 34,000 acre-feet by 2030.</p> <p>The provision of water resources is an infrastructure need that must be well managed. While Denver water has enacted effective and far reaching conservation measures, conservation alone is not enough to solve our water supply demands. Gross Reservoir must be expanded.</p> <p>Thank you for the opportunity comment on this critical project.</p> <p>Sincerely,</p>	<p>Form Letter Comment #1081-1 (ID 2800): <i>I am writing to express our strong support for the expansion of Gross Reservoir which will provide a reliable and adequate water supply for existing and future residents. A reliable water supply is an essential ingredient to our quality of life, without which population growth will be limited, businesses will close and economic opportunity will be stifled. Denver Water's collection system is comprised of the Moffat Collection System (MCS) or North System, and the South system. The MCS, which includes Gross Reservoir, has existing water demands that can exceed available supplies during a drought. We understand that during a severe drought, such as occurred in 2002, the Moffat Water Treatment Plant has a significant level of risk of running out of water. The proposed Gross Reservoir expansion was chosen from an analysis of more than 300 potential water supply sources and infrastructure components that were screened during the initial phase of the Environmental Impact Statement process. This is the preferred water supply solution for our region. Without expanding the reservoir, Denver Water in drought years could be unable to meet its contractual commitments to customers served by the North System. Furthermore, Denver Water will begin experiencing a shortfall in supply beginning in 2016 and growing by 34,000 acre-feet by 2030. The provision of water resources is an infrastructure need that must be well managed. While Denver water has enacted effective and far reaching conservation measures, conservation alone is not enough to solve our water supply demands. Gross Reservoir must be expanded.</i></p> <p>Response #1081-1: The U.S. Army Corps of Engineers (Corps) notes the support of the Moffat Collection System Project</p>

Comment-Response Report (Strong Support Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1701 Donald G. Dunshee, [REDACTED]</p> <p>Comment #1702 Barney J. Fix, [REDACTED] [REDACTED]</p> <p>Comment #1704 Howard Gett, Chairman and Deborah Obermeyer, CEO Metro North Chamber of Commerce 2921 West 120th Avenue, Suite 210 Westminster, CO 80234</p> <p>Comment #1710 Bradley H. Harvey, [REDACTED]</p>		<p>(Moffat Project or Project). Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to the National Environmental Policy Act of 1969, as amended.</p>

Comment-Response Report (Strong Support Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1714 Jeff Keller, [REDACTED] [REDACTED]</p> <p>Comment #1719 Michael E. illegible, [REDACTED]</p> <p>Comment #1722 Peggy Price, [REDACTED]</p> <p>Comment #1724 Amy Sherman, President and CEO The West Chamber Serving Jefferson County 1667 Cole Boulevard, Building 19, Suite 400 Lakewood, CO 80401</p>		

Comment-Response Report (Strong Support Form Letters)

This page intentionally left blank

Urge You Form Letters

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
URGE YOU FORM LETTER — STANDARD		
<p><i>[The Urge You Standard Form Letter shown here on page 1 was submitted by all the commenters listed below.]</i></p> <p>Comment #501 Steve Coffin</p> <p>Comment #1000 Charles Arnold</p> <p>Comment #1001 John Lecoq Fishpond</p> <p>Comment #1002 Glenn Kreutzer</p> <p>Comment #1003 Bill Engle</p> <p>Comment #1004 Ronald Mangan</p> <p>Comment #1005 Marshall Turner</p> <p>Comment #1006 Jerry Mohrlang</p> <p>Comment #1007 Wayne Schrader</p> <p>Comment #1008 David Kennedy</p> <p>Comment #1009 Christopher Sprowl</p>	<p>Name: _____ Company: _____ Address: _____ City: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Member, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: _____</p>	<p>Form Letter Comment #999-1 (ID 2681): <i>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</i></p> <ul style="list-style-type: none"> • <i>Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions;</i> • <i>Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and</i> • <i>Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project.</i> <p>Response #999-1: The Board of Water Commissioners (Denver Water) has committed to provide flushing flows in the Fraser River, St. Louis, Vasquez, and Ranch creeks. Denver Water has also committed to forgo diversions when stream temperatures associated with low flow conditions are elevated. Refer to the Final Environmental Impact Statement (FEIS) Appendix M for a description of the proposed mitigation measures. The U.S. Army Corps of Engineers (Corps) is considering imposing such permit conditions to mitigate effects in the aquatic environment, if a permit is issued. In addition, to complement the mitigation measures, Denver Water is committed to the</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1010 Dave Corkill</p> <p>Comment #1011 Mark Ponsor</p> <p>Comment #1012 Michael Suniga</p> <p>Comment #1013 Matthew Bourke Hardy</p> <p>Comment #1014 Stuart Findley</p> <p>Comment #1015 Reginald Paulk [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]</p> <p>Comment #1016 Chris Meyer</p> <p>Comment #1017 Kimberly Marcum</p> <p>Comment #1018 Neal Misbach</p> <p>Comment #1019 Gregory and Sherryl Walck</p> <p>Comment #1020 Bill Dvorak</p>		<p>Learning by Doing (LBD) Cooperative Effort to enhance the existing environment and stream flow conditions (FEIS Section 4.3.1). For example, Denver Water will work with the Management Committee of the LBD Cooperative Effort to coordinate operations of its diversion structures in an effort to provide flushing flows, enhance peak spring flows, and/or augment low flows. Specific enhancements that could address low flow and flushing flows include:</p> <ul style="list-style-type: none"> • 1,000 acre-feet (AF) annually of bypass water from the Fraser Collection System for environmental purposes. • Up to 1,000 AF annually of releases from Williams Fork Reservoir and 2,500 AF of carry over storage in Williams Fork Reservoir for environmental purposes. • Denver Water agrees not to reduce the U.S. Forest Service bypass flows during a drought unless Denver Water has banned all residential lawn watering in its service area (Denver Water has never banned residential lawn watering). <p>FEIS Appendix M contains a Conceptual Mitigation Plan proposed by Denver Water to mitigate the Moffat Collection System Project (Moffat Project or Project) related impacts identified in the Environmental impact Statement (EIS). The Corps will determine if the proposed mitigation would offset identified impacts. The final mitigation measures will be specified by the Corps as Section 404 Permit conditions, if a permit is issued.</p> <p>Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 acre-feet per year (AF/yr) of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1021 Fred Marzano</p> <p>Comment #1022 Jayne Montgomery [REDACTED] [REDACTED] [REDACTED]</p> <p>Comment #1023 Christina Marzano</p> <p>Comment #1024 Fred Zietz, Sr.</p> <p>Comment #1025 Jason Relyea</p> <p>Comment #1026 Jerry Fearn</p> <p>Comment #1027 David Parri [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]</p> <p>Comment #1028 William Reische</p> <p>Comment #1029 Tony Weber</p> <p>Comment #1030 Gerald Ryan</p> <p>Comment #1031 C. Edwin Witt, Sr.</p>		<p>Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the 34,000 AF water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in Draft Environmental Impact Statement (DEIS) and FEIS Table 1-2.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (i.e., 10:00 a.m. – 6:00 p.m.) outside watering cannot occur, and prohibits watering the street, and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1197 Edward Mahardy</p> <p>Comment #1202 David McMillan</p> <p>Comment #1203 Shawn Cheadle</p> <p>Comment #1204 Chris Striebich</p> <p>Comment #1205 Court Dixon [REDACTED] [REDACTED] [REDACTED]</p> <p>Comment #1206 John Andrews</p> <p>Comment #1207 Mike Sullivan</p> <p>Comment #1208 Stephen Somora, Jr.</p> <p>Comment #1209 Bill Richey</p> <p>Comment #1210 Marty Wilcox</p> <p>Comment #1211 Chan Bergen</p> <p>Comment #1212 Dr. William Zautke</p>		<p>The Corps considers appropriate and legal measures to mitigate for effects caused by any authorized project according to the National Environmental Policy Act of 1969, as amended (NEPA) and Section 404 regulations.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
Comment #1213 Dennis Hult		
Comment #1214 Larry Ball		
Comment #1215 Tom Caprio		
Comment #1216 David McNicholas		
Comment #1217 Jeff Brandt		
Comment #1218 Kirk Von Bernuth		
Comment #1219 Woody Jacober		
Comment #1220 Steve Dukes		
Comment #1221 Jason Coughlin		
Comment #1222 James Niehans		
Comment #1223 Bill Daniels		
Comment #1224 Richard Marez		
Comment #1225 Robert Miller		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1226 Dan Urban</p> <p>Comment #1227 Ann and Sam Johnson</p> <p>Comment #1228 Chris Shepard</p> <p>Comment #1229 Chris Crosby</p> <p>Comment #1230 Kurt Olesek</p> <p>Comment #1231 Duane Hutchinson</p> <p>Comment #1233 Tom Corr</p> <p>Comment #1234 Dennis Bruner</p> <p>Comment #1235 Thomas Jones</p> <p>Comment #1236 Richard Carlton</p> <p>Comment #1237 Eric France</p> <p>Comment #1238 Dennis Nelson</p> <p>Comment #1239 Mark Moe</p>		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1240 Garry Patrick</p> <p>Comment #1242 C.J. Jacobson</p> <p>Comment #1243 Bob Carrick</p> <p>Comment #1245 Craig Johnson</p> <p>Comment #1246 Earl Taylor</p> <p>Comment #1247 Timothy Prout</p> <p>Comment #1249 Rudy Schneider</p> <p>Comment #1250 Chip Allen</p> <p>Comment #1251 John Shanley</p> <p>Comment #1252 Christopher Eriksen</p> <p>Comment #1253 John Carron</p> <p>Comment #1254 Paul Benedetti</p> <p>Comment #1255 Kristin Tita</p>		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1256 E. Weisberg</p> <p>Comment #1257 Randy Pharo</p> <p>Comment #1258 James Flynn</p> <p>Comment #1259 William Feldman</p> <p>Comment #1261 Richard Gibford</p> <p>Comment #1262 Rod Edmonds</p> <p>Comment #1263 Mark Jaeger</p> <p>Comment #1264 John Neidzwiecki</p> <p>Comment #1265 Don Muchet</p> <p>Comment #1266 Jeff Burleson</p> <p>Comment #1267 Paul Blackburn</p> <p>Comment #1268 Eugene Teter</p> <p>Comment #1269 Geoffrey Stephenson</p>		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1271 Ralph Jacobson</p> <p>Comment #1272 James Grout</p> <p>Comment #1273 Larry Anderson</p> <p>Comment #1275 John Kurish</p> <p>Comment #1276 Larry Cannon</p> <p>Comment #1277 Ronald Baker</p> <p>Comment #1278 Ken Bowen</p> <p>Comment #1279 Michael Bradshaw</p> <p>Comment #1280 Paul Sullivan</p> <p>Comment #1281 Dave Bromfield</p> <p>Comment #1282 Kathryn Switzer</p> <p>Comment #1283 Austin Dieckmann</p> <p>Comment #1284 Bob Rollins</p>		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1285 William Weddle</p> <p>Comment #1286 David Baker</p> <p>Comment #1287 Michael Silecchia</p> <p>Comment #1288 Clinton Lake</p> <p>Comment #1289 Robert Trout</p> <p>Comment #1290 Von Fransen</p> <p>Comment #1291 James Pyeat</p> <p>Comment #1292 Lee Hensley</p> <p>Comment #1293 Steven Wilcox</p> <p>Comment #1294 Michael Anderson</p> <p>Comment #1295 Sally Fant</p> <p>Comment #1296 Peter Nikaitani</p> <p>Comment #1297 Shawn Merrill</p>		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1298 Chris Pettine</p> <p>Comment #1299 William Conger</p> <p>Comment #1300 Anthony Kay</p> <p>Comment #1301 Patrick and Susan Carr</p> <p>Comment #1302 Larry Thomas</p> <p>Comment #1303 John Roberts</p> <p>Comment #1304 Jacques De Lorimier</p> <p>Comment #1305 William Lukes</p> <p>Comment #1306 Adi Vongontard</p> <p>Comment #1308 Mr. and Mrs. Dennis Gudat</p> <p>Comment #1309 Anne and Tim Collins</p> <p>Comment #1310 Charles Osborne</p> <p>Comment #1311 Vern Meadows</p>		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1312 Chris Rampone</p> <p>Comment #1313 Carl Bachhuber</p> <p>Comment #1314 Colonel Bob Keitges</p> <p>Comment #1315 David and Marian Clark</p> <p>Comment #1316 Joe Cannon</p> <p>Comment #1317 Gary Raney</p> <p>Comment #1318 Robert Magill</p> <p>Comment #1319 Sean Magill</p> <p>Comment #1320 Thomas Swanson</p> <p>Comment #1321 Roger Dekloe</p> <p>Comment #1322 H.J. Phillips</p> <p>Comment #1323 Jim Logterman</p> <p>Comment #1324 Leonard Wheaton</p>		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1325 Gerald Shin</p> <p>Comment #1326 Robert Hamel</p> <p>Comment #1327 John Cook</p> <p>Comment #1328 Michael Sayers</p> <p>Comment #1329 John Axelson</p> <p>Comment #1330 Steve Sherman [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]</p> <p>Comment #1331 David Weiss</p> <p>Comment #1332 Mason Carter</p> <p>Comment #1333 Robert Donizio</p> <p>Comment #1334 Kenneth Sorrentino</p> <p>Comment #1335 James Boak</p> <p>Comment #1336 Gary Stiegler</p>		


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
Comment # 1337 H. Benjamin Duke III		
Comment # 1338 Richard Doucette		
Comment # 1339 Howard Jenkins		
Comment # 1340 J. Sedillo		
Comment # 1341 Jeff Bowen		
Comment # 1342 Joel Gesink		
Comment # 1343 W. Dunlap		
Comment # 1344 Ted Gabreski		
Comment # 1345 Warren Johns		
Comment # 1346 Benji Kitagawa		
Comment # 1347 Dale Lovin		
Comment # 1348 Bruce Papich		
Comment # 1349 Peter Medaugh		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1350 Ronald Taylor</p> <p>Comment #1351 Jack McCarthy</p> <p>Comment #1352 Paul Shoning</p> <p>Comment #1353 Edward Jurkoshek</p> <p>Comment #1354 George Daniel</p> <p>Comment #1355 B. Robins</p> <p>Comment #1356 David Darling</p> <p>Comment #1357 Mark Miller</p> <p>Comment #1358 Doyle Balentine</p> <p>Comment #1359 Gene Cope</p> <p>Comment #1360 J. Strom</p> <p>Comment #1361 Fred Reiter</p> <p>Comment #1362 Stephen Hock</p> <p>Comment #1385 Dennis Johnson</p>		

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
URGE YOU FORM LETTER — UNIQUE		
<p>Comment #1307 Paula Moore</p>	<div style="text-align: center;">  </div> <p>Name: <u>Mrs. Paula Moore</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I also ask that you provide public updates on the status of this project and public access to the data collected to assess the viability and impacts of this project, as a minimal commitment to ensuring that your efforts and decisions are transparent and accountable.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Paula Moore</u></p>	<p>Unique Comment #1307-2 (ID 2683): <i>I also ask that you provide public updates on the status of this project and public access to the data collected to assess the viability and impacts of this project, as a minimal commitment to ensuring that your efforts and decisions are transparent and accountable.</i></p> <p>Response #1307-2: Throughout the NEPA process, the Corps provided Project updates on its website. Additionally, the Corps maintains a Project mailing list comprised of the general public (i.e., citizens, private companies, non-governmental organizations [NGOs], etc.) that attended the scoping meetings as well as current contacts at the appropriate local, State, and Federal agencies. Informational post cards describing the public hearings, including the meeting in Boulder, were distributed to members of the Project mailing list on October 28, 2009. Information on the public hearings was also distributed as display ads in the following local newspapers:</p> <ul style="list-style-type: none"> • Denver Post, 10/30/09 and 11/30/09 • Sky-Hi Daily News, 10/30/09 and 11/30/09 • Mountain Messenger (Coal Creek Canyon), November Issue • Highlander Monthly, November Issue • Boulder Daily Camera, 10/30/09 and 11/30/09 <p>Public hearing information was also displayed on the Corps' Project website and Denver Water's website.</p> <p>Data that was collected and used to make impact determinations was included in the EIS, which is a publicly available document. In addition to an</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
		<p>electronic version of the EIS on the Corps' website, hard copies of the EIS were available for review at the public hearings and at the following locations:</p> <ul style="list-style-type: none"> • Denver Water • Corps Denver Regulatory Office • Arvada Library • Boulder County Main Library • Denver Central Library • Fraser Valley Library • Golden Library • Granby Library • Kremmling Library • Summit County Library North Branch • Summit County Library South Branch • Thornton Branch Library

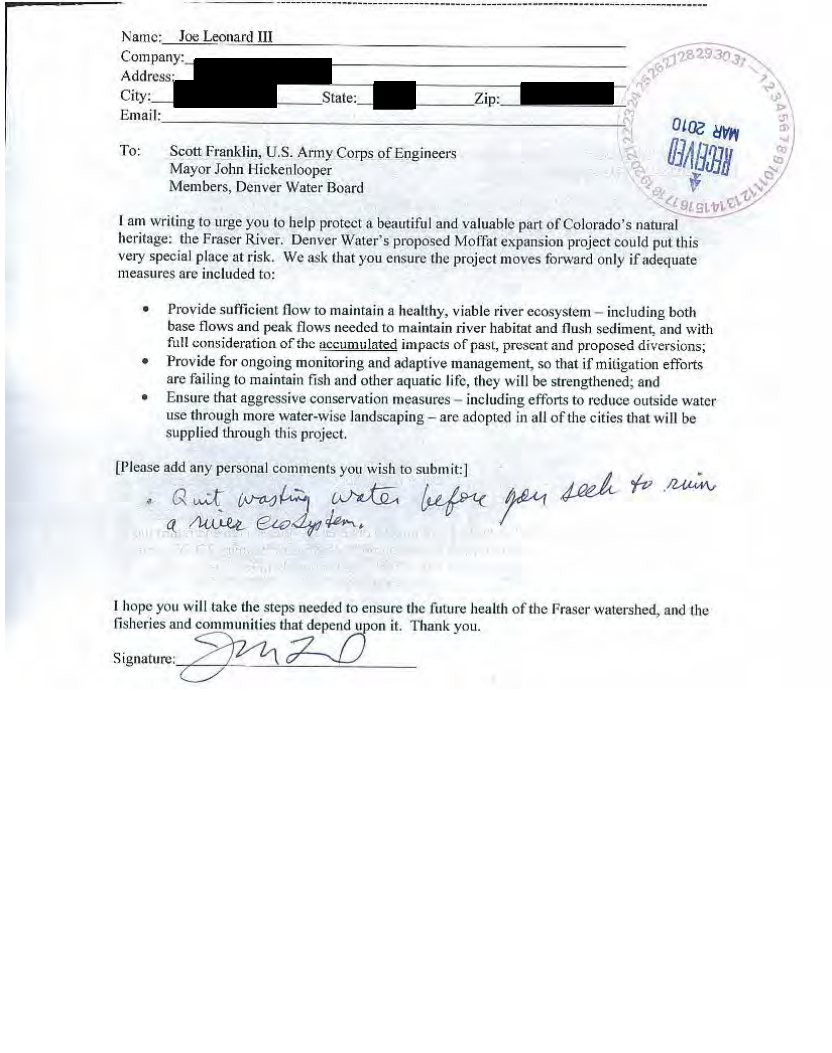
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1364 Emily Horan</p>	<div style="border: 1px solid black; padding: 5px;"> <p>Name: Mr. Emily Horan Company: [REDACTED] Address: [REDACTED] City: [REDACTED] State: [REDACTED] Zip: [REDACTED] Email: [REDACTED]</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I live on the Fraser river and it would be a tragedy to all of Colorado and all those who rely on our water down the Colorado River, if the Fraser River were depleted of its natural flow. Please consider the importance of this river and the implications of removing even more water. I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</i></p> <p>Signature: <i>Emily Horan</i></p> </div>	<p>Unique Comment #1364-2 (ID 2684): <i>I live on the Fraser river and it would be a tragedy to all of Colorado and all those who rely on our water down the Colorado River, if the Fraser River were depleted of its natural flow. Please consider the importance of this river and the implications of removing even more water. (back)</i></p> <p>NOTE TO FILE: THE BACK OF EMILY HORAN'S SUBMITTAL CONTAINED NO ADDITIONAL TEXT</p> <p>Response #1364-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1365 Michael J. Miller</p>	<p>Name: Mr Michael Miller Company: Address: City: State: Zip: Email: </p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>The front range needs to stay out of the mountains and our rivers, creeks streams + wetlands. It is time to stop! & restore our water ways!!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Michael J. Miller</i></p> 	<p>Unique Comment #1365-2 (ID 2685): <i>The front range needs to stay out of the mountains and our rivers, creeks streams & wetlands. It is time to stop! & restore our water ways!!</i></p> <p>Response #1365-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1366 Joe Leonard III</p>	 <p>Name: Joe Leonard III Company: [REDACTED] Address: [REDACTED] City: [REDACTED] State: [REDACTED] Zip: [REDACTED] Email: [REDACTED]</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Quit wasting water before you seek to ruin a river ecosystem.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Jm20</i></p>	<p>Unique Comment #1366-1 (ID 2686): <i>Quit wasting water before you seek to ruin a river ecosystem.</i></p> <p>Response #1366-1: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>



Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1367 Mark Fagerness</p>	<p>Name: <u>Mr. Mark Fagerness</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>DO WHAT'S RIGHT NOT WHAT'S POPULAR/PROFITABLE STOP COLORADO'S LONG HISTORY OF RESOURCE RAPE!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Mark Fagerness</i></p>	<p>Unique Comment #1367-2 (ID 2687): <i>Do what's right not what's popular/profitable. Stop Colorado's long history of resource rape!</i></p> <p>Response #1367-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

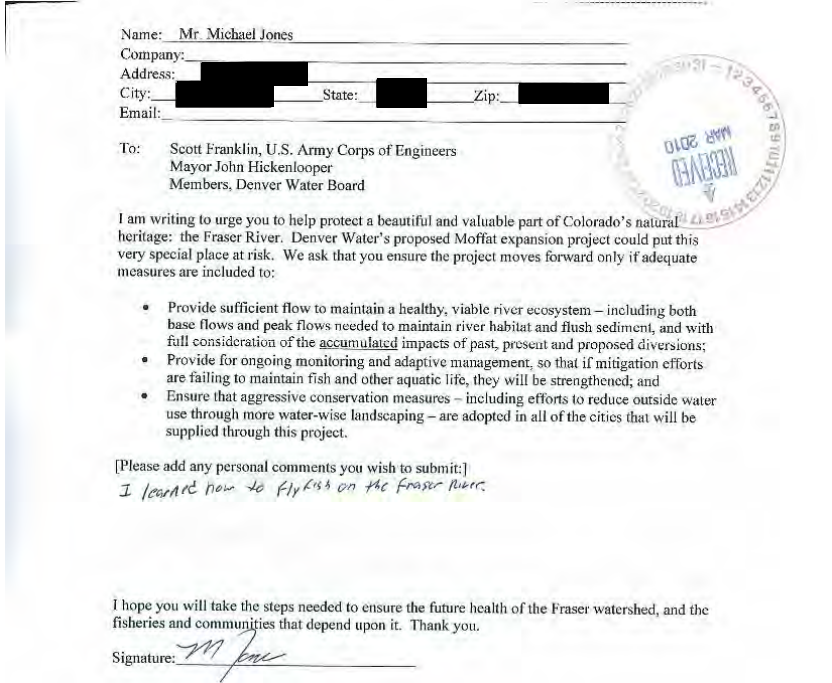
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1368 R.T. (Robert Tremain) Howell</p>	<div style="text-align: center;">  </div> <p>Name: Mr. R. Howell <i>R.T. (Robert Tremain)</i> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] <i>I have been a guide & fly-fisher on the Conejos R. in south central Colorado since 1978. But water flows from Platoro Dam during the winter are so low that nearly the whole river freezes over.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>R.T. Howell</i></p>	<p>Unique Comment #1368-2 (ID 2688): <i>I have been a guide & fly-fisher on the Conejos R. in south central Colorado since 1978. But water flows from Platoro Dam during the winter are so low that nearly the whole river freezes over.</i></p> <p>Response #1368-2: The Corps notes the comment.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1369 Mel Preusser</p>	<div style="text-align: center;">  </div> <p>Name: Mr. Mel Preusser Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>This river is one of my favorites and, believe me, I've observed the degradation of this fishery begin already.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: </p>	<p>Unique Comment #1369-2 (ID 2689): <i>This river is one of my favorites and, believe me, I've observed the degradation of this fishery begin already.</i></p> <p>Response #1369-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1370 Michael Jones</p>	 <p>Name: Mr. Michael Jones Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] <i>I learned how to flyfish on the Fraser River.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>M Jones</i></p>	<p>Unique Comment #1370-2 (ID 2690): <i>I learned how to flyfish on the Fraser River.</i></p> <p>Response #1370-2: The Corps notes the comment.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1371 James Crawford, Jr.</p>	<p>Name: <u>Mr. James Crawford Jr.</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>When the demand your policies help foster outstrips supply, what kind of state will we be left with?</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>James W. Crawford Jr.</i></p> 	<p>Unique Comment #1371-2 (ID 2691): <i>When the demand your policies help foster outstrips supply, what kind of state will we be left with?</i></p> <p>Response #1371-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1372 Kent Mills</p>	<p>Name: Ms. Kent Mills Company: [REDACTED] Address: [REDACTED] City: [REDACTED] State: [REDACTED] Zip: [REDACTED] Email: [REDACTED]</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>This ANEA has always been a great recreational ANEA and should be allowed to stay that way for future generations.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Kent Mills</i></p>	<p>Unique Comment #1372-2 (ID 2692): <i>This area has always been a great recreational area and should be allowed to stay that way for future generations.</i></p> <p>Response #1372-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

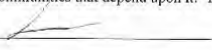
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1373 Mike Sweeney</p>	<div style="text-align: center;">  </div> <p>Name: Mike Sweeney Company: [REDACTED] Address: [REDACTED] City: [REDACTED] State: [REDACTED] Zip: [REDACTED] Email: [REDACTED]</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I HAVE TAUGHT MY KIDS & AM NOW TEACHING MY GRANDKIDS TO FLYFISH ON THIS RIVER & WOULD HATE TO SEE ITS BEAUTY AND/OR VIABILITY DIMINISHED IN ANY WAY. PLEASE DO WHAT IS BEST TO BE GOOD STEWARDS OF OUR NATURAL ENVIRONMENT.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Mike Sweeney</i></p>	<p>Unique Comment #1373-2 (ID 2693): <i>I have taught my kids & am now teaching my grandkids to flyfish on this river & would hate to see its beauty and/or viability diminished in any way. Please do what is best to be good stewards of our natural environment.</i></p> <p>Response #1373-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1374 Cecily Mui</p>	<p>Name: <u>Mr. Cecily Mui, Resource Specialist</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit.]</p> <p><i>Please carefully consider geomorphological changes altering the flows can have on erosion & bank stabilization. Ensure flows & timing of flows protection for our native fish populations.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Handwritten Signature]</i> <i>I would prefer to not even see any additional diversions from the Fraser River.</i></p> 	<p>Unique Comment #1374-2 (ID 2694): <i>Please carefully consider geomorphological changes altering the flows can have on erosion & bank stabilization. Ensure flows & timing of flows protection for our native fish populations. I would prefer to not even see any additional diversions from the Fraser River.</i></p> <p>Response #1374-2: The analyses of stream morphology, specifically the anticipated response of the streams to projected flows changes as the result of additional water diversions during high spring flow conditions were supplemented in the FEIS. Additional assessments included added sampling sites, review of historic data and sensitivity analysis of sediment supply and sediment transport equations. Analyses of the existing systems are provided in FEIS Section 3.3. Assessments of the streams' predicted response to proposed flow changes are provided in FEIS Sections 4.6.3 and 5.3.</p> <p>An analysis was completed to quantify changes to the magnitude and frequency of larger flood events. The duration between flooding events was computed to identify changes anticipated as a result of the Proposed Action. This information supplements sediment transport and effective discharge analysis that were performed to quantify the ability of the streams to transport their sediment load. This information is included in FEIS Sections 4.6.3 and 5.3.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1375 Kirk Klancke Winter Park Ranch Water & Sanitation District P.O. Box 82 Fraser, CO 80442-0082</p>	<p>Name: <u>Mr. Kirk Klancke</u> Company: <u>Winter Park Ranch Water & Sanitation Dist.</u> Address: <u>PO Box 82</u> City: <u>Fraser</u> State: <u>CO</u> Zip: <u>80442-0082</u> Email: <u>Kirk@wprwater.com</u></p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Please acknowledge in the EIS the impacts of increased concentrations of nutrients being pumped into Grand Lake through the CBT project.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u></u></p>	<p>Unique Comment #1375-2 (ID 2695): <i>Please acknowledge in the EIS the impacts of increased concentrations of nutrients being pumped into Grand Lake through the CBT project.</i></p> <p>Response #1375-2: Additional water quality analysis has been performed for the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1376 William Panck</p>	<div style="text-align: center;">  </div> <p>Name: <u>Mr. William Panck</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>MY FAMILY AND I HAVE BEEN FISHING THE FRASER RIVER FOR YEARS. I LOOK FORWARD TO TEACHING MY SONS AND GRANDKIDS HOW TO FISH THIS BEAUTIFUL RIVER.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u><i>William J. Panck</i></u></p>	<p>Unique Comment #1376-2 (ID 2696): <i>My family and I have been fishing the Fraser River for years. I look forward to teaching my sons and grandkids how to fish this beautiful river.</i></p> <p>Response #1376-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1377 Edwin Baker</p>	<div style="text-align: right; margin-bottom: 10px;">  </div> <p>Name: <u>Edwin Baker</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p style="text-align: center;"><i>— we can't let these rivers dry up. So many creatures depend on these rivers (including us)!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Edwin O. Baker</u></p>	<p>Unique Comment #1377-2 (ID 2697): <i>We can't let these rivers dry up. So many creatures depend on these rivers (including us)!</i></p> <p>Response #1377-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


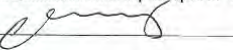
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1378 Gene Stevens</p>	<p>Name: <u>Mr. Gene Stevens</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I am a fisherman and a sportsman, and I strongly urge you to protect The Fraser River for future generations.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u><i>Gene Stevens</i></u></p> 	<p>Unique Comment #1378-2 (ID 2698): <i>I am a fisherman and a sportsman, and I strongly urge you to protect the Fraser River for future generations.</i></p> <p>Response #1378-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1379 Don Marshall</p>	<div style="border: 1px solid black; padding: 5px;"> <p>Name: <u>Ms. Don Marshall</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p style="font-family: cursive; font-size: 1.2em;">This is something that can <u>never</u> be reconstructed. Please preserve it!</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Don Marshall</u></p> </div>	<p>Unique Comment #1379-2 (ID 2699): <i>This is something that can never be reconstructed. Please preserve it!</i></p> <p>Response #1379-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1380 Thomas and Elene Mooney</p>	<div style="text-align: center;">  </div> <p>Name: <u>Mr. Thomas & Elene Mooney</u> Company: _____ Address: <u> </u> City: <u> </u> State: <u> </u> Zip: <u> </u> Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p style="text-align: center;"><i>De watering our great waterways is tragic. To leave adequate flows for life only for part of the year makes no sense. Inconsistent flows are inconsistent with conservation.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u></u></p>	<p>Unique Comment #1380-2 (ID 2700): <i>De watering our great waterways is tragic. To leave adequate flows for life only for part of the year makes no sense. Inconsistent flows are inconsistent with conservation.</i></p> <p>Response #1380-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

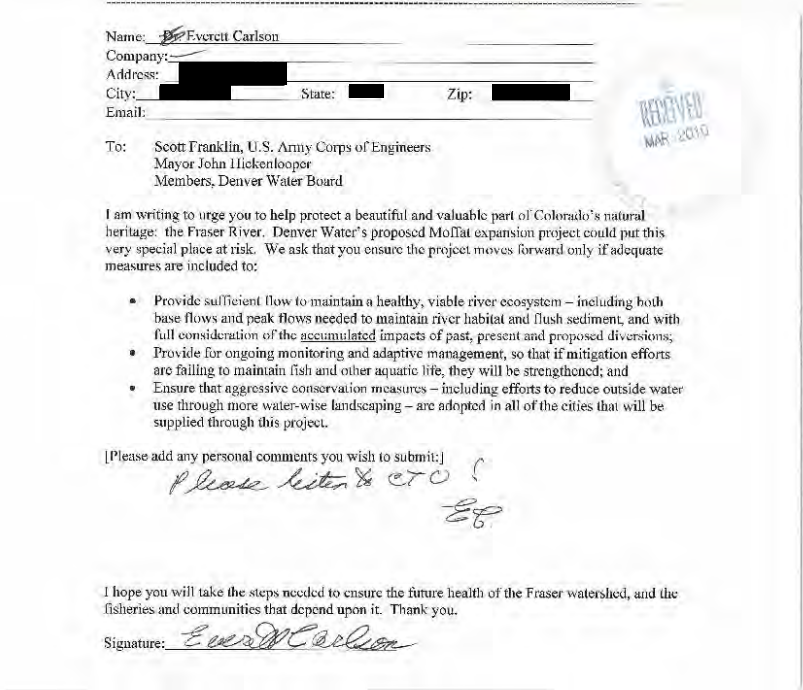
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1381 Dan Bandy</p>	<div style="text-align: center;">  </div> <p>Name: <u>Mr. Dan Bandy</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I oppose further diversion of Fraser River water to Denver Water unless effective mitigation measures are in place to preserve the Fraser's wild trout fishery.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u><i>Dan Bandy</i></u></p>	<p>Unique Comment #1381-2 (ID 2701): <i>I oppose further diversion of Fraser River water to Denver Water unless effective mitigation measures are in place to preserve the Fraser's wild trout fishery.</i></p> <p>Response #1381-2: Denver Water is providing funds to improve habitat for cutthroat trout in an effort to improve the wild trout population.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1382 Wallace Westfeldt</p>	<p>Name: <u>Mr. Wallace Westfeldt</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] - Geography & resources cannot sustain un-restricted growth of Denver Metro. - Re-institute mandatory water restrictions NOW!!!</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Wallace Westfeldt</u></p> 	<p>Unique Comment #1382-2 (ID 2702): <i>Geography & resources cannot sustain un-restricted growth of Denver Metro. Re-institute mandatory water restrictions NOW!!!</i></p> <p>Response #1382-2: Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of 18,000 AF. Denver Water is implementing an aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.</p>

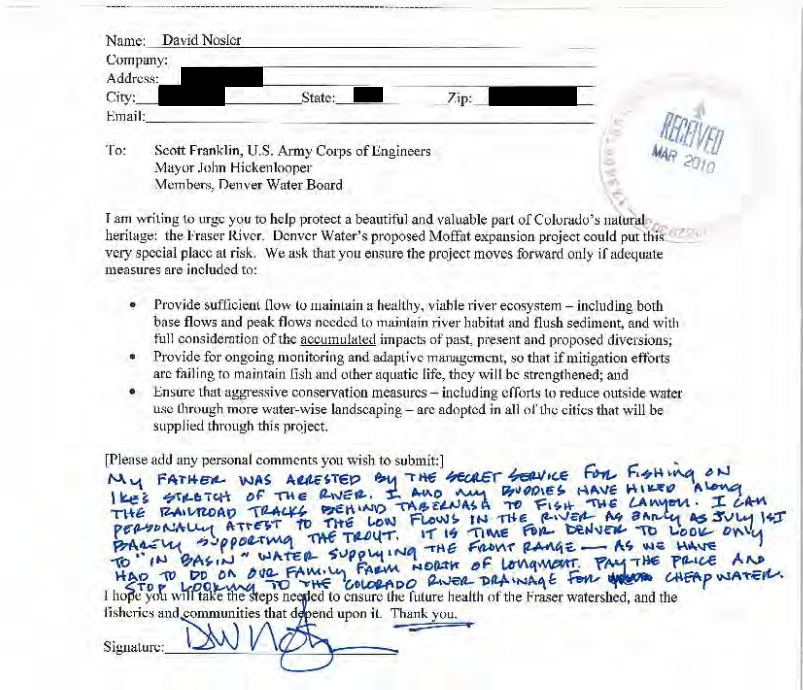
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1383 Everett Carlson</p>	 <p>Name: <u>Everett Carlson</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] <i>Please listen to CTO!</i> <i>EC</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Everett Carlson</u></p>	<p>Unique Comment #1383-2 (ID 2703): Please listen to CTO!</p> <p>Response #1383-2: The Corps notes the comment.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1384 Robert Durland</p>	 <p>Name: <u>Mr. Robert Durland</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I believe the health of all rivers goes way beyond just the recreational values it provides but is a core ingredient to maintaining a healthy environment.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Robert C Durland</i></p>	<p>Unique Comment #1384-2 (ID 2704): <i>I believe the health of all rivers goes way beyond just the recreational values it provides but is a core ingredient to maintaining a healthy environment.</i></p> <p>Response #1384-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

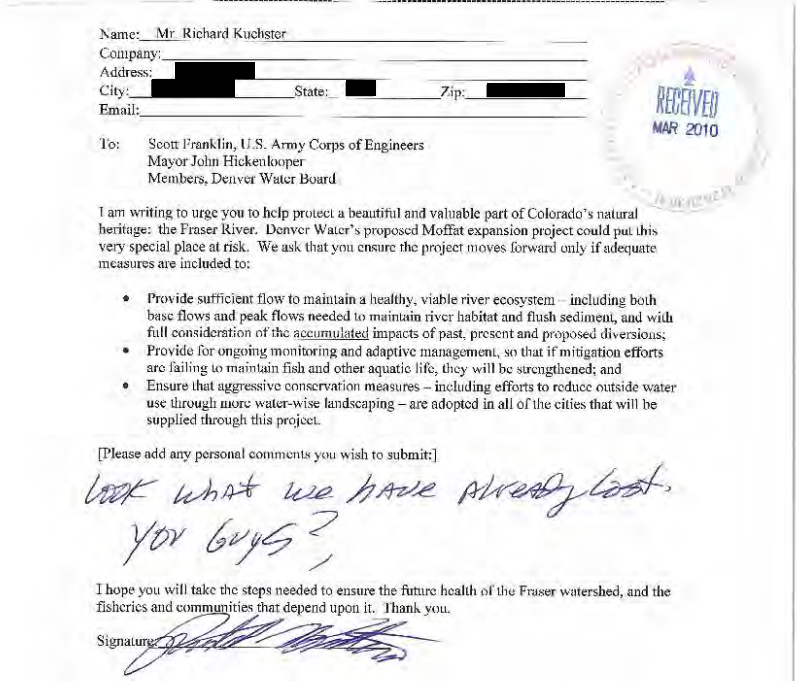
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1386 David Nosler</p>	 <p>Name: David Nosler Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>MY FATHER WAS ARRESTED BY THE SECRET SERVICE FOR FISHING ON IKE'S STRETCH OF THE RIVER. I AND MY BUDDIES HAVE HIKEED ALONG THE RAILROAD TRACKS BEHIND TABERNASH TO FISH THE CANYON. I CAN PERSONALLY ATTEST TO THE LOW FLOWS IN THE RIVER AS EARLY AS JULY 1ST BARELY SUPPORTING THE TROUT. IT IS TIME FOR DENVER TO LOOK ONLY TO "IN BASIN" WATER SUPPLYING THE FRONT RANGE -- AS WE HAVE HAD TO DO ON OUR FAMILY FARM NORTH OF LONGMONT. PAY THE PRICE AND STOP LOOKING TO THE COLORADO RIVER DRAINAGE FOR CHEAP WATER.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>David Nosler</i> 3/22/10</p>	<p>Unique Comment #1386-2 (ID 2706): <i>My father was arrested by the secret service for fishing on Ike's stretch of the river. I and my buddies have hiked along the railroad tracks behind Tabernash to fish the canyon. I can personally attest to the low flows in the river as early as July 1st barely supporting the trout. It is time for Denver to look only to "in basin" water supplying the front range -- as we have had to do on our family farm north of Longmont. Pay the price and stop looking to the Colorado River drainage for cheap water.</i></p> <p>Response #1386-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

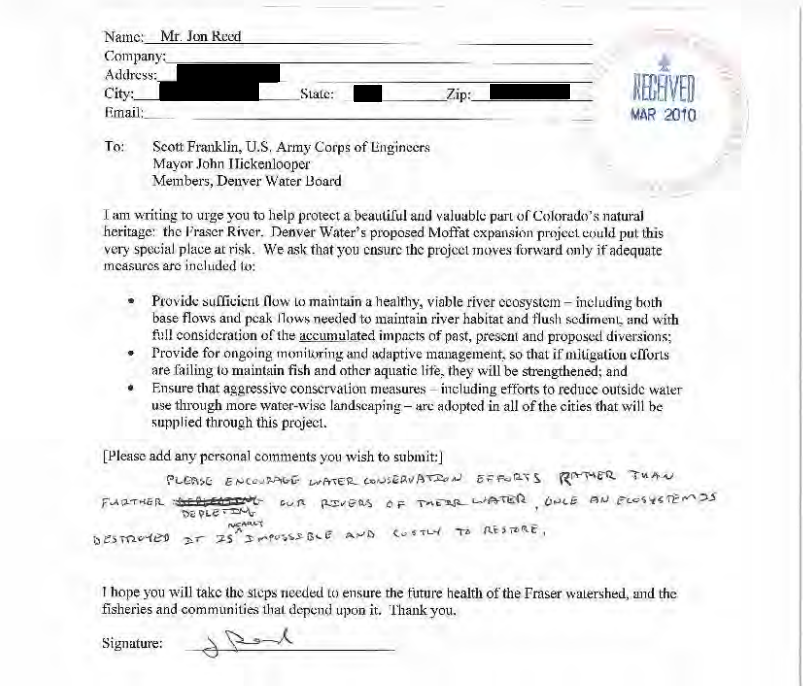
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1387 Ron Hoenninger</p>	 <p>Name: <u>Mr. Ron Hoenninger</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>We only have so many resources. Don't squander them without concern and planning to assure this project benefits all of us and those to come after. Make sure we preserve what we have by and through proper conservation.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Ron Hoenninger</u></p>	<p>Unique Comment #1387-2 (ID 2707): <i>We only have so many resources. Don't squander them without concern and planning to assure this project benefits all of us and those to come after. Make sure we preserve what we have by and through proper conservation.</i></p> <p>Response #1387-2: All Denver Water Customers are metered. Denver Water implements a Block Census Rate Structure (i.e., the more one uses, the more one pays). Rates are based on a cost of service analysis comprised of customer classes (e.g., residential, industrial, commercial, and institutional) and by whether customers live inside or outside the City and County of Denver. Costs are recovered from each customer class in proportion to the cost of providing the service to each class. Rates consist of a consumption charge per 1,000 gallons consumed a fixed, per account service charge.</p>

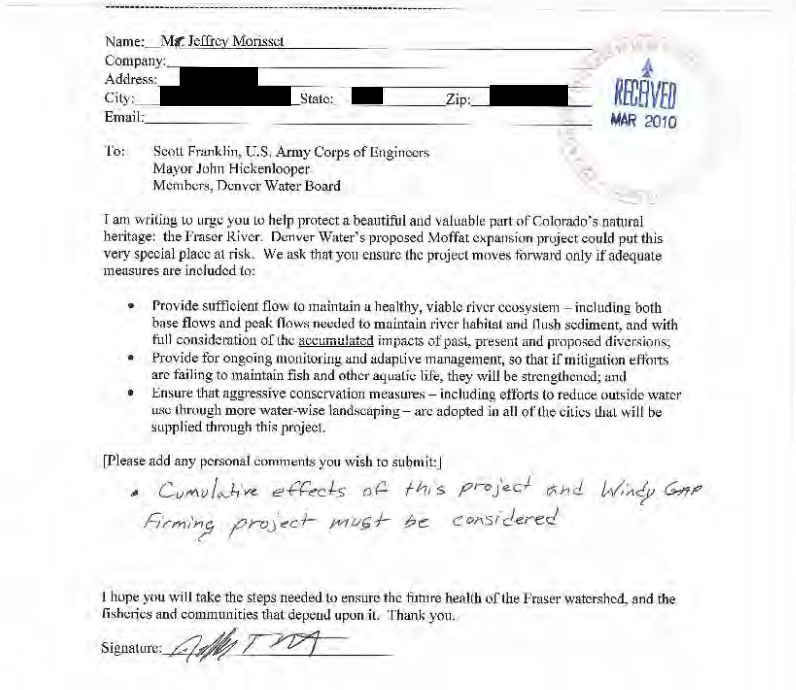
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1388 Richard Kuehster</p>	 <p>Name: <u>Mr. Richard Kuehster</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>look what we have already lost, you guys?</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Handwritten Signature]</i></p>	<p>Unique Comment #1388-2 (ID 2708): <i>Look what we have already lost, you guys?</i></p> <p>Response #1388-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

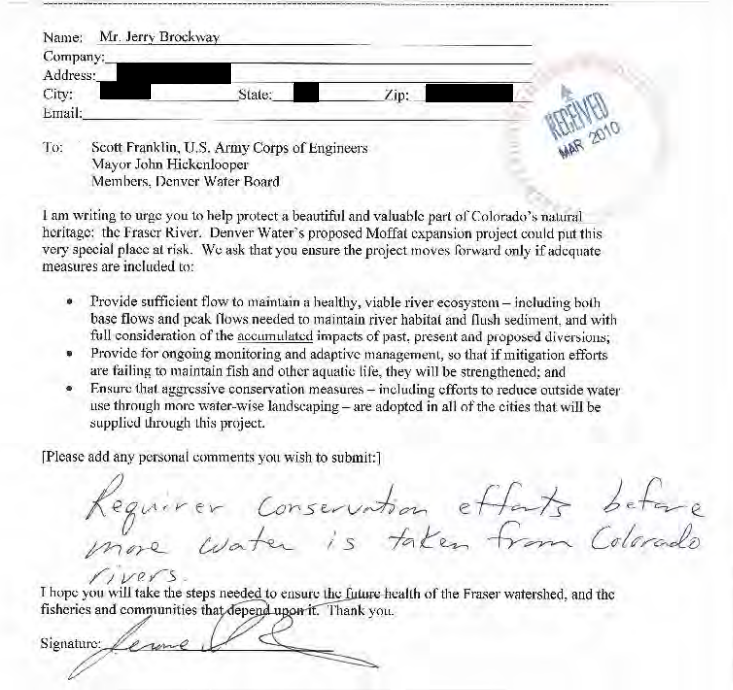
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1389 Jon Reed</p>	 <p>Name: <u>Mr. Jon Reed</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>PLEASE ENCOURAGE WATER CONSERVATION EFFORTS RATHER THAN FURTHER DEPLETING OUR RIVERS OF THEIR WATER, ONCE AN ECOSYSTEM IS DESTROYED IT IS IMPOSSIBLE AND COSTLY TO RESTORE.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>J Reed</u></p>	<p>Unique Comment #1389-1 (ID 2709): <i>Please encourage water conservation efforts rather than further depleting our rivers of their water. Once an ecosystem is destroyed it is nearly impossible and costly to restore.</i></p> <p>Response #1389-1: The Corps notes the comment.</p>

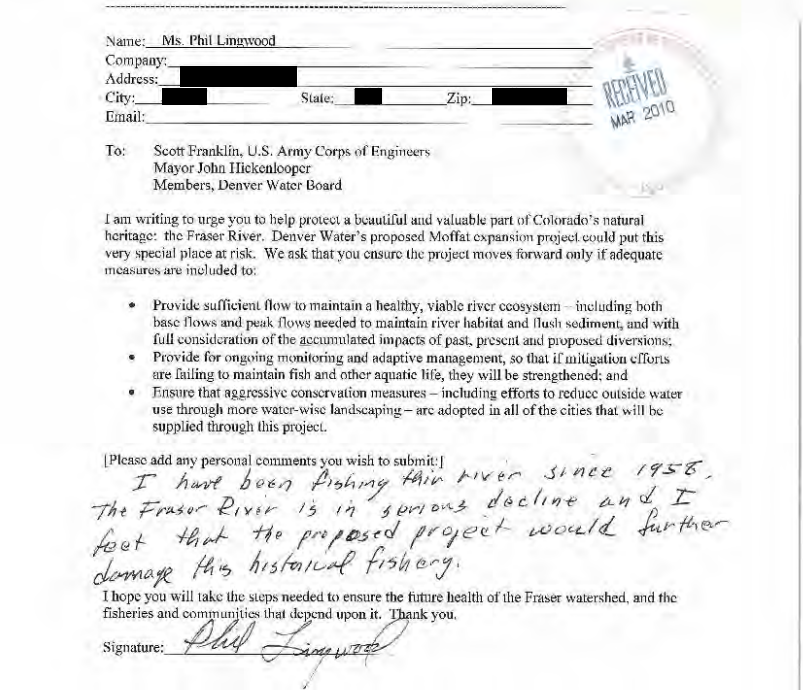
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1390 Jeffrey Morisset</p>	 <p>Name: <u>Mr. Jeffrey Morisset</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Cumulative effects of this project and Windy Gap Firing project must be considered</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>[Handwritten Signature]</u></p>	<p>Unique Comment #1390-2 (ID 2710): <i>Cumulative effects of this project and Windy Gap Firing Project must be considered.</i></p> <p>Response #1390-2: The DEIS includes the Windy Gap Firing Project (WGFP) as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of Front Range entities, most notably withdrawals from the Fraser River watershed, the Colorado-Big Thompson (C-BT) Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p>

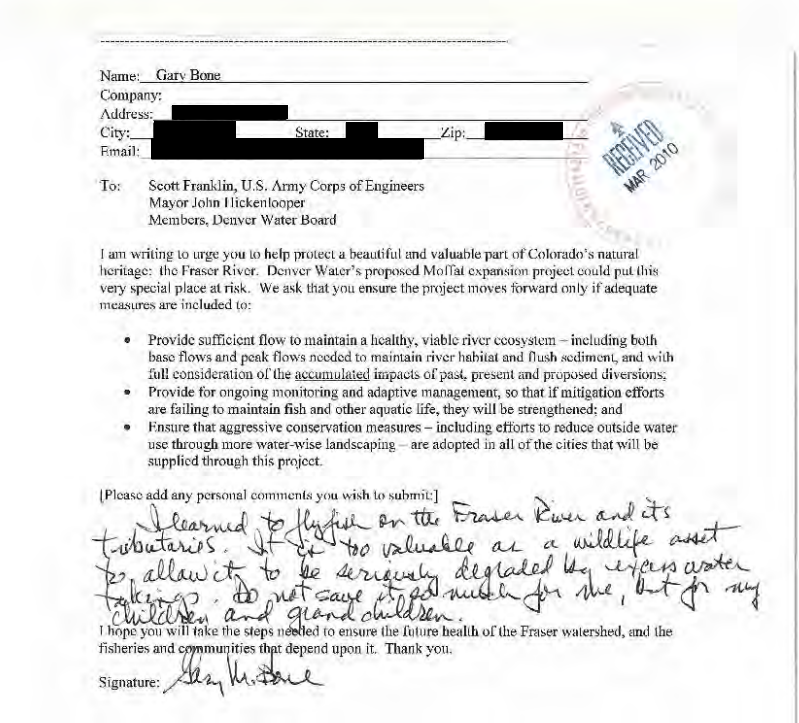
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1391 Jerry Brockway</p>	 <p>Name: Mr. Jerry Brockway Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Require conservation efforts before more water is taken from Colorado rivers.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Handwritten Signature]</i></p>	<p>Unique Comment #1391-2 (ID 2711): <i>Require conservation efforts before more water is taken from Colorado rivers.</i></p> <p>Response #1391-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation, so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

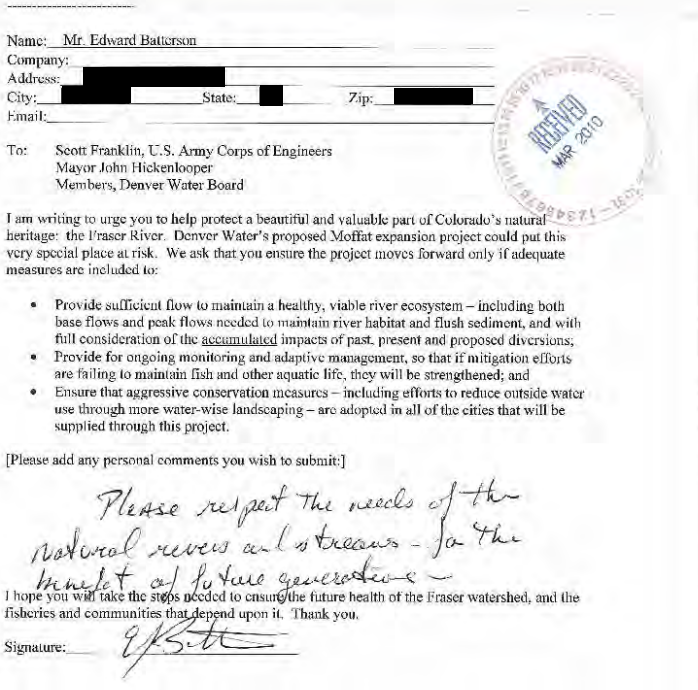
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1392 Phil Lingwood</p>	 <p>Name: <u>Ms. Phil Lingwood</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] <i>I have been fishing this river since 1958. The Fraser River is in serious decline and I feel that the proposed project would further damage this historical fishery.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Phil Lingwood</u></p>	<p>Unique Comment #1392-2 (ID 2712): <i>I have been fishing this river since 1958. The Fraser River is in serious decline and I feel that the proposed project would further damage this historical fishery.</i></p> <p>Response #1392-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

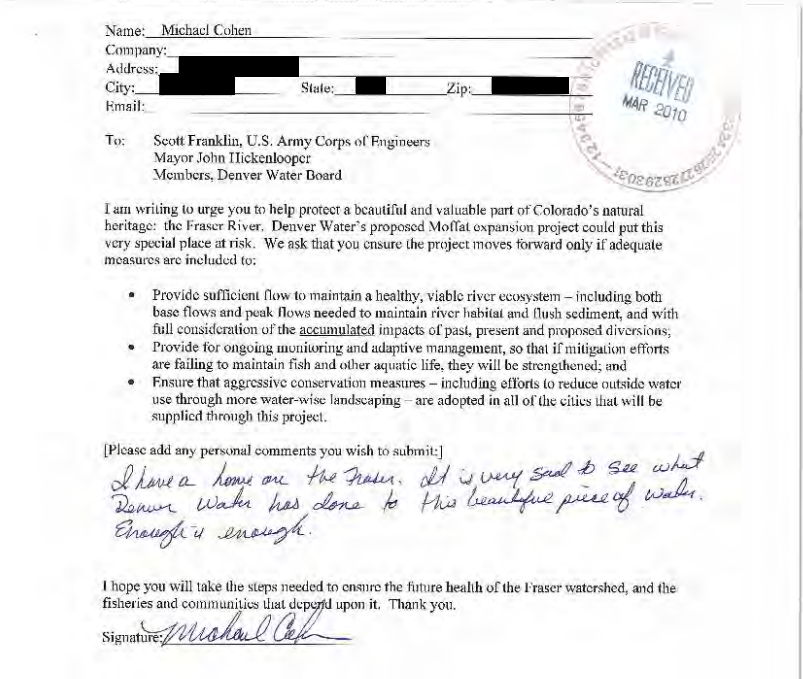
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1393 Gary Bone</p>	 <p>Name: Gary Bone Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I learned to flyfish on the Fraser River and its tributaries. It is too valuable as a wildlife asset to allow it to be seriously degraded by excess water takings. Do not save it as much for me, but for my children and grandchildren.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Gary Bone</i></p>	<p>Unique Comment #1393-2 (ID 2713): <i>I learned to flyfish on the Fraser River and its tributaries. It is too valuable as a wildlife asset to allow it to be seriously degraded by excess water takings. Do not save it as much for me, but for my children and grandchildren.</i></p> <p>Response #1393-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

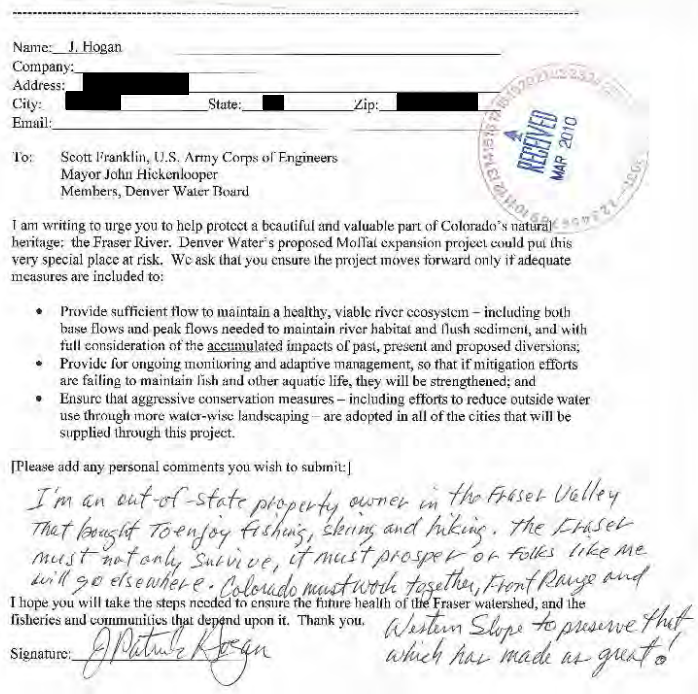
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1394 Edward Batterson</p>	 <p>Name: Mr. Edward Batterson Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Please respect the needs of the natural rivers and streams - for the benefit of future generations -</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>E. Batterson</i></p>	<p>Unique Comment #1394-2 (ID 2714): <i>Please respect the needs of the natural rivers and streams for the benefit of future generations.</i></p> <p>Response #1394-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

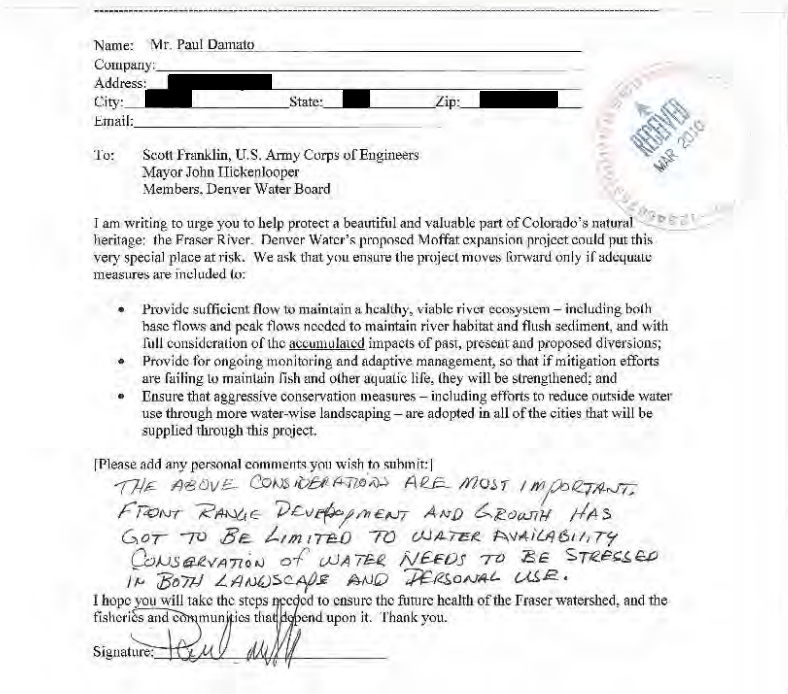
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1395 Michael Cohen</p>	 <p>Name: <u>Michael Cohen</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I have a home on the Fraser. It is very sad to see what Denver Water has done to this beautiful piece of water. Enough is enough.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Michael Cohen</u></p>	<p>Unique Comment #1395-2 (ID 2715): <i>I have a home on the Fraser. It is very sad to see what Denver Water has done to this beautiful piece of water. Enough is enough.</i></p> <p>Response #1395-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

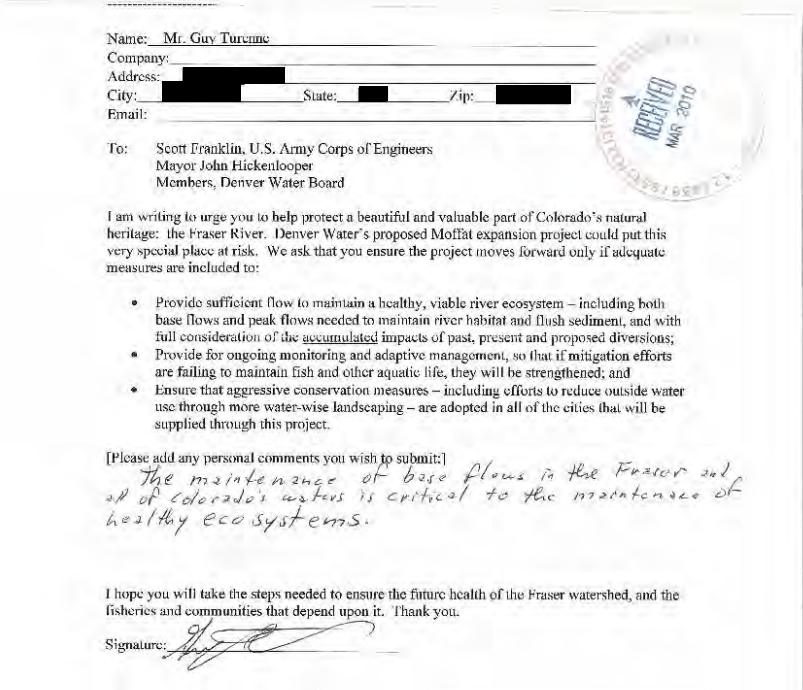
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1397 J. Hogan</p>	 <p>Name: J. Hogan Company: Address: City: State: Zip: Email: To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Mollai expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I'm an out-of-state property owner in the Fraser Valley that bought to enjoy fishing, skiing and hiking. The Fraser must not only survive, it must prosper or folks like me will go elsewhere. Colorado must work together, Front Range and Western Slope to preserve that which has made us great!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>J. Hogan</i></p>	<p>Unique Comment #1397-2 (ID 2716): <i>I'm an out-of-state property owner in the Fraser Valley that bought to enjoy fishing, skiing and hiking. The Fraser must not only survive, it must prosper or folks like me will go elsewhere. Colorado must work together, Front Range and Western Slope to preserve that which has made us great!</i></p> <p>Response #1397-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

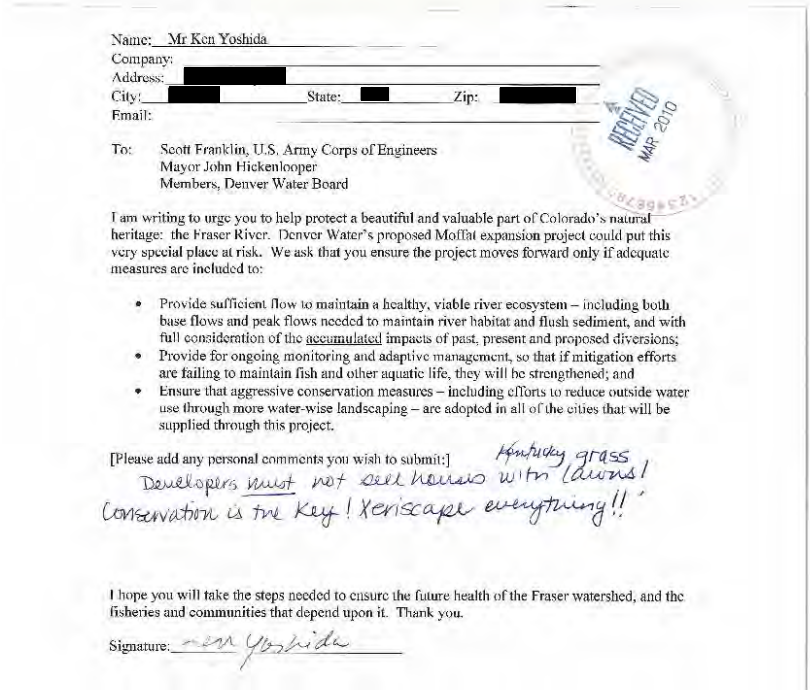
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1398 Paul Damato</p>	 <p>Name: Mr. Paul Damato Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>THE ABOVE CONSIDERATIONS ARE MOST IMPORTANT. FRONT RANGE DEVELOPMENT AND GROWTH HAS GOT TO BE LIMITED TO WATER AVAILABILITY CONSERVATION OF WATER NEEDS TO BE STRESSED IN BOTH LANDSCAPE AND PERSONAL USE.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Paul Damato</u></p>	<p>Unique Comment #1398-2 (ID 2717): <i>The above considerations are most important. Front Range development and growth has got to be limited to water availability conservation of water needs to be stressed in both landscape and personal use.</i></p> <p>Response #1398-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1399 Guy Turenne</p>	 <p>Name: <u>Mr. Guy Turenne</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] <i>The maintenance of base flows in the Fraser and all of Colorado's waters is critical to the maintenance of healthy ecosystems.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Handwritten Signature]</i></p>	<p>Unique Comment #1399-2 (ID 2718): <i>The maintenance of base flows in the Fraser and all of Colorado's waters is critical to the maintenance of healthy ecosystems.</i></p> <p>Response #1399-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

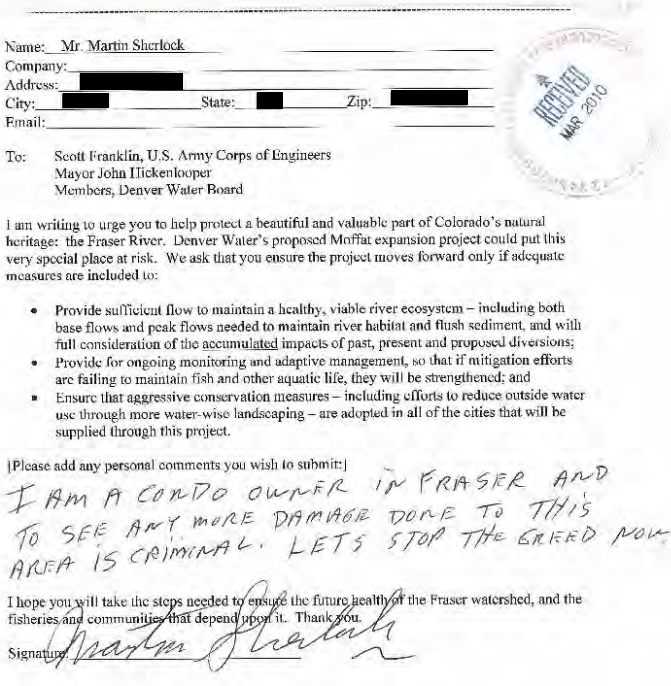
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1400 Ken Yoshida</p>	 <p>Name: <u>Mr Ken Yoshida</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] <i>Kentucky grass</i> <i>Developers must not sell houses with lawns!</i> <i>Conservation is the key! Xeriscape everything!!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Ken Yoshida</u></p>	<p>Unique Comment #1400-2 (ID 2719): <i>Developers must not sell houses with Kentucky grass lawns! Conservation is the key! Xeriscape everything!!</i></p> <p>Response #1400-2: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

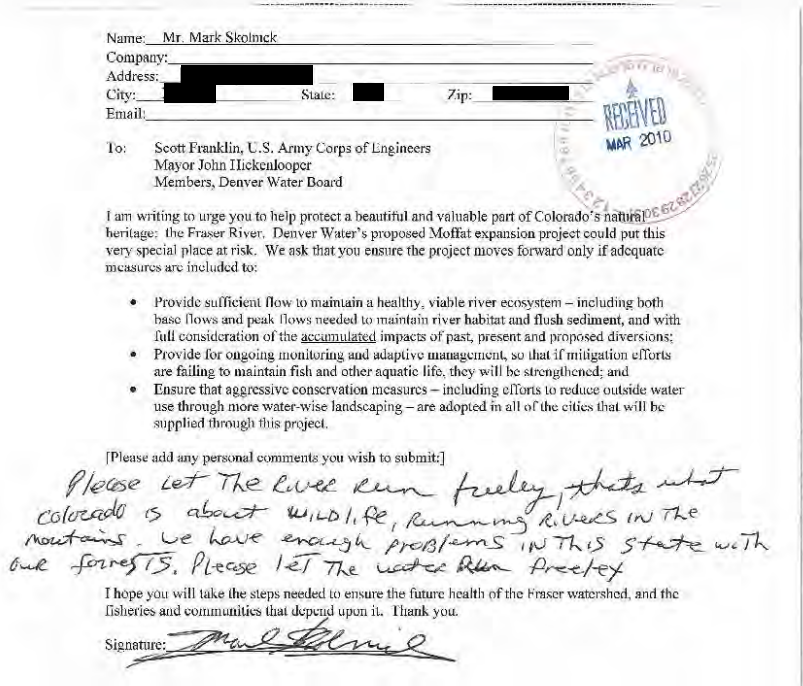
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1401 James Gudinas</p>	 <p>Name: Mr. James Gudinas Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>PLEASE CONSERVE WATER FOR FUTURE GENERATIONS TO ENJOY!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Jfg</i></p>	<p>Unique Comment #1401-2 (ID 2720): <i>Please conserve water for future generations to enjoy!</i></p> <p>Response #1401-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

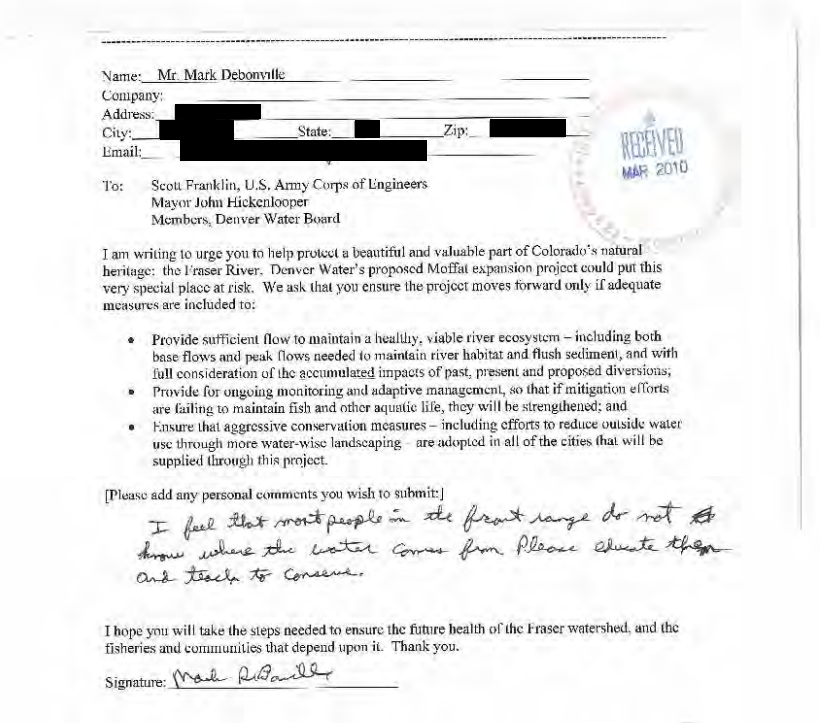
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1402 Martin Sherlock</p>	 <p>Name: <u>Mr. Martin Sherlock</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I AM A CONDO OWNER IN FRASER AND TO SEE ANY MORE DAMAGE DONE TO THIS AREA IS CRIMINAL. LETS STOP THE GREED NOW.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u><i>Martin Sherlock</i></u></p>	<p>Unique Comment #1402-2 (ID 2721): <i>I am a condo owner in Fraser and to see any more damage done to this area is criminal. Let's stop the greed now.</i></p> <p>Response #1402-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

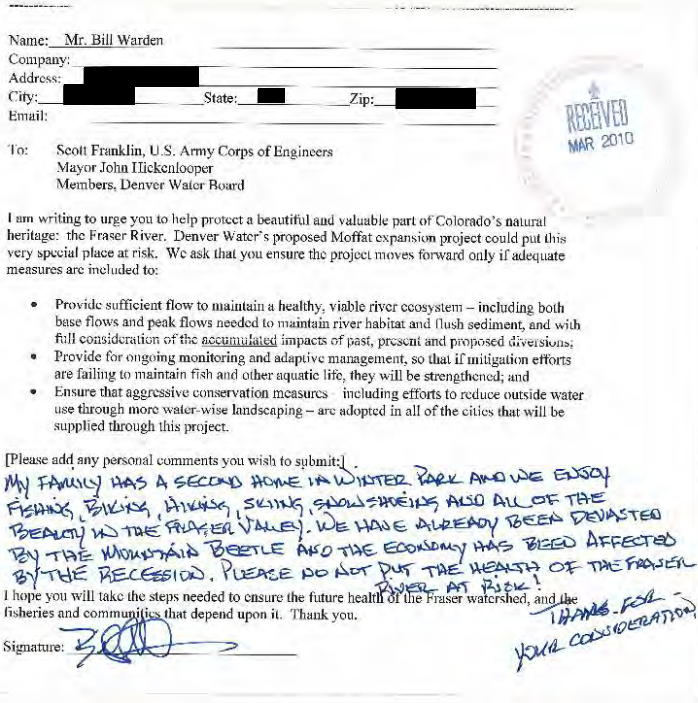
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1403 Mark Skolnick</p>	 <p>Name: Mr. Mark Skolnick Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Please let the river run freely, that's what Colorado is about wildlife, running rivers in the mountains. We have enough problems in this state with our forests. Please let the water run freely.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Mark Skolnick</i></p>	<p>Unique Comment #1403-2 (ID 2722): <i>Please let the river run freely, that's what Colorado is about wildlife, running rivers in the mountains. We have enough problems in this state with our forests. Please let the water run freely.</i></p> <p>Response #1403-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

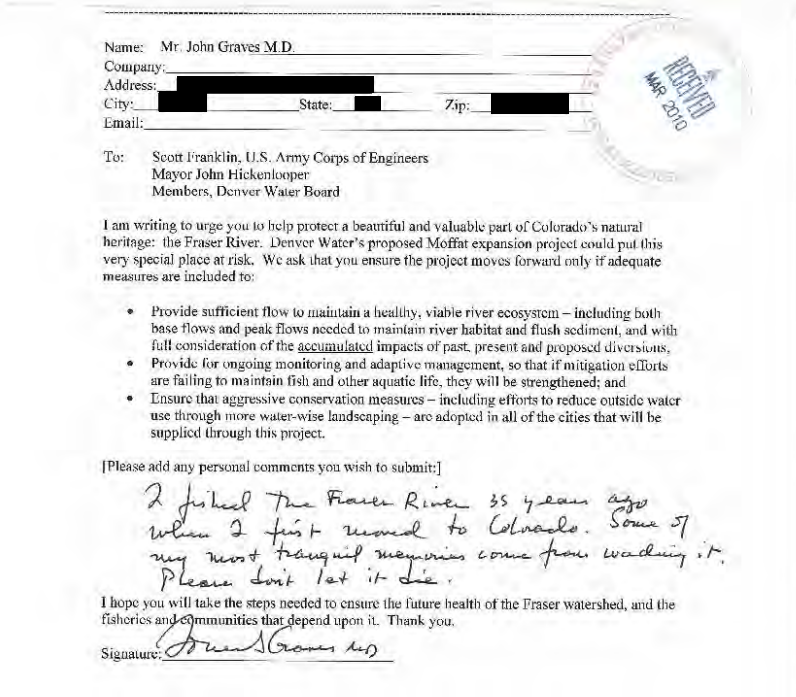
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1428 Mark DeBonville</p>	 <p>Name: <u>Mr. Mark Debonville</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I feel that most people in the front range do not know where the water comes from. Please educate them and teach to conserve.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Mark DeBonville</u></p>	<p>Unique Comment #1428-2 (ID 2723): <i>I feel that most people in the front range do not know where the water comes from. Please educate them and teach to conserve.</i></p> <p>Response #1428-2: Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22 percent (%) by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>

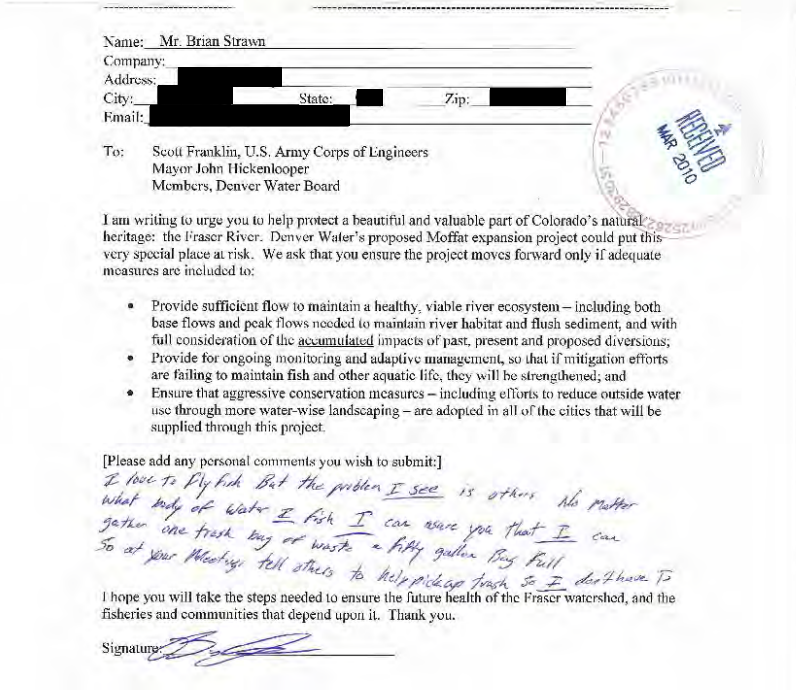
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1429 Bill Warden</p>	 <p>Name: <u>Mr. Bill Warden</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>MY FAMILY HAS A SECOND HOME IN WINTER PARK AND WE ENJOY FISHING, BIKING, HIKING, SKIING, SNOWSHOEING ALSO ALL OF THE BEAUTY IN THE FRASER VALLEY. WE HAVE ALREADY BEEN DEVASTED BY THE MOUNTAIN BEETLE AND THE ECONOMY HAS BEEN AFFECTED BY THE RECESSION. PLEASE DO NOT PUT THE HEALTH OF THE FRASER RIVER AT RISK!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>[Handwritten Signature]</u></p> <p style="text-align: right;"><i>THANKS FOR YOUR CONSIDERATION</i></p>	<p>Unique Comment #1429-2 (ID 2724): <i>My family has a second home in Winter park and we enjoy fishing, biking, hiking, skiing, snowshoeing. Also all of the beauty in the Fraser Valley. We have already been devastated by the mountain beetle and the economy has been affected by the recession. Please do not put the health of the Fraser River as risk!</i></p> <p>Response #1429-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

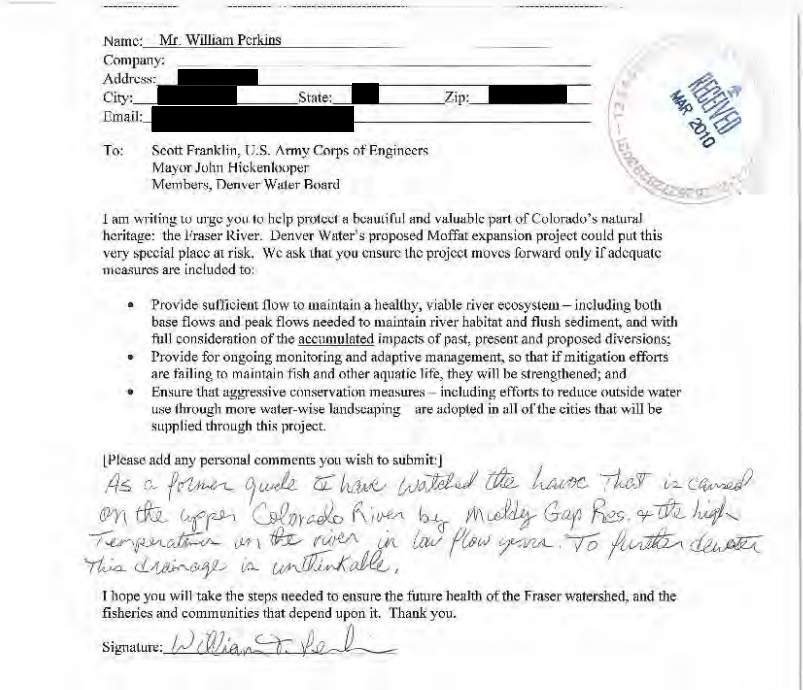
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1430 John Graves, M.D.</p>	 <p>Name: Mr. John Graves M.D. Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I fished The Fraser River 35 years ago when I first moved to Colorado. Some of my most tranquil memories come from watching it. Please don't let it die.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>John Graves M.D.</u></p>	<p>Unique Comment #1430-2 (ID 2725): <i>I fished the Fraser River 35 years ago when I first moved to Colorado. Some of my most tranquil memories come from watching it. Please don't let it die.</i></p> <p>Response #1430-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

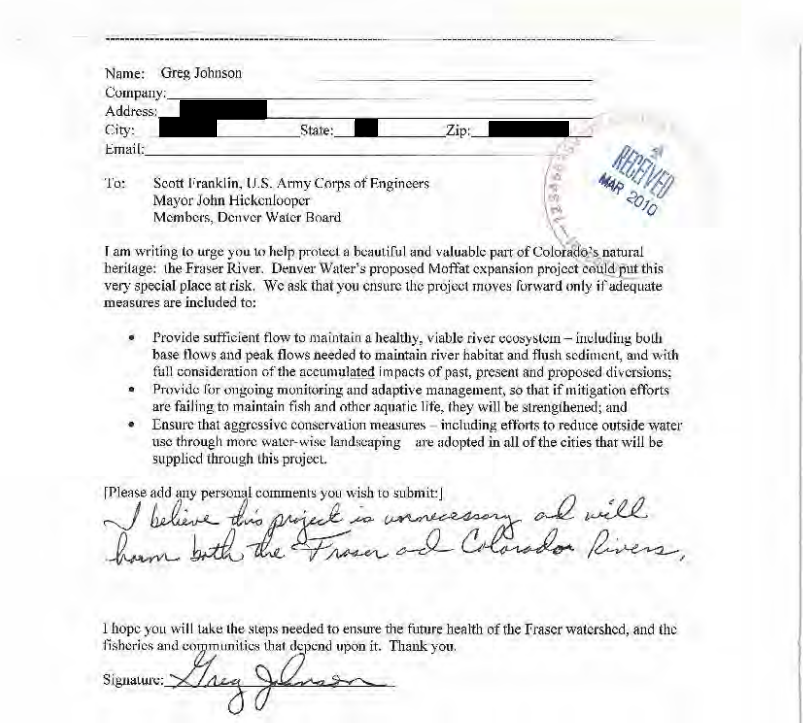
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1431 Brian Strawn</p>	 <p>Name: <u>Mr. Brian Strawn</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I love to fly fish. But the problem I see is others. No matter what body of water I fish I can assure you that I can gather one trash bag of waste a fifty gallon bag full so at your meeting tell others to help pick up trash so I don't have to.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>[Handwritten Signature]</u></p>	<p>Unique Comment #1431-2 (ID 2726): <i>I love to flyfish but the problem I see is others. No matter what body of water I fish I can assure you that I can gather one trash bag of waste a fifty gallon bag full so at your meeting tell others to help pick up trash so I don't have to.</i></p> <p>Response #1431-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

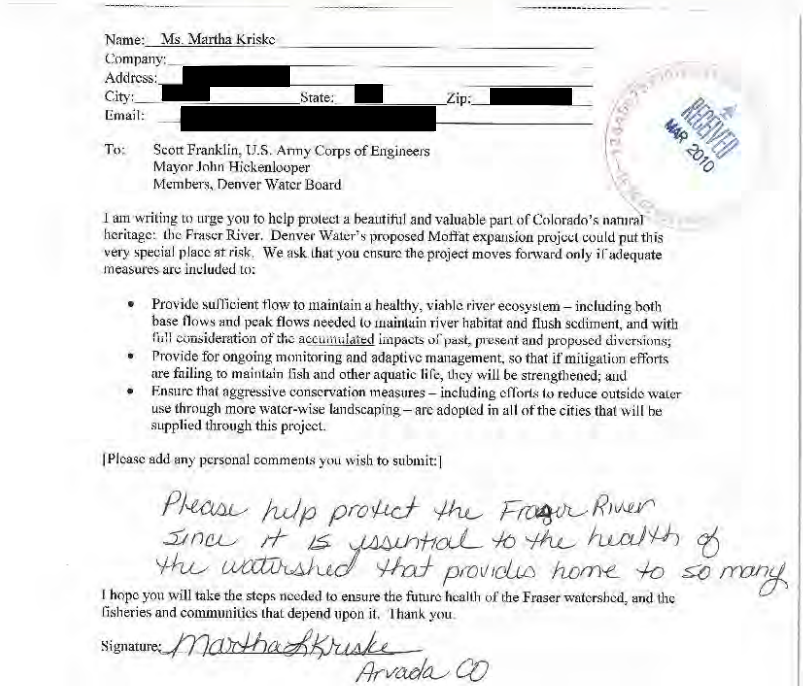
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1432 William Perkins</p>	 <p>Name: <u>Mr. William Perkins</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenkooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>As a former guide I have watched the havoc that is caused on the upper Colorado River by Muddy Gap Res. & the high temperature on the river in low flow years. To further dewater this drainage is unthinkable.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>William Perkins</u></p>	<p>Unique Comment #1432-2 (ID 2727): <i>As a former guide I have watched the havoc that is caused on the upper Colorado River by Muddy Gap Res. & the high temperature on the river in low flow years. To further dewater this drainage is unthinkable.</i></p> <p>Response #1432-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

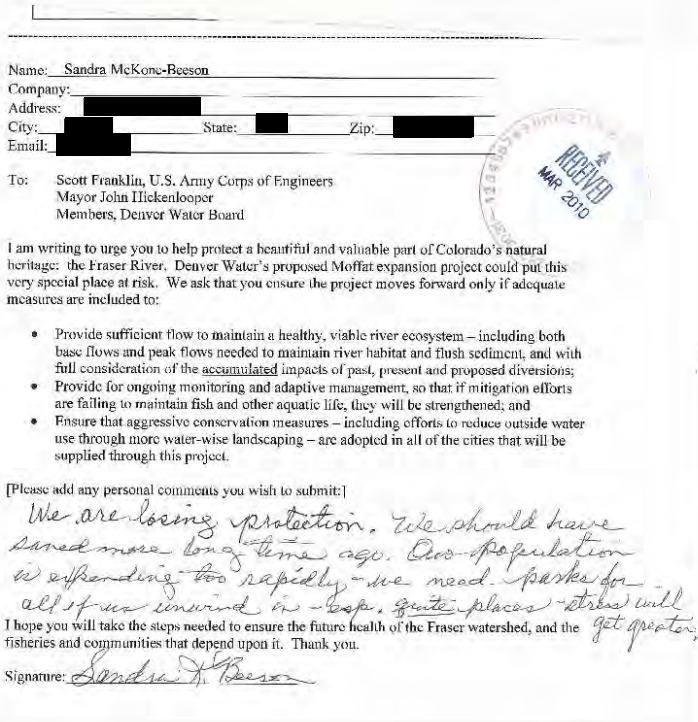
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1433 Greg Johnson</p>	 <p>Name: Greg Johnson Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>(Please add any personal comments you wish to submit:)</p> <p><i>I believe this project is unnecessary and will harm both the Fraser and Colorado Rivers.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Greg Johnson</i></p>	<p>Unique Comment #1433-2 (ID 2728): <i>I believe this project is unnecessary and will harm both the Fraser and Colorado Rivers.</i></p> <p>Response #1433-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1434 Martha Kriske</p>	 <p>Name: <u>Ms. Martha Kriske</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Please help protect the Fraser River since it is essential to the health of the watershed that provides home to so many</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Martha Kriske</u> <u>Arvada CO</u></p>	<p>Unique Comment #1434-2 (ID 2729): <i>Please help protect the Fraser River since it essential to the health of the watershed that provides home to so many.</i></p> <p>Response #1434-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

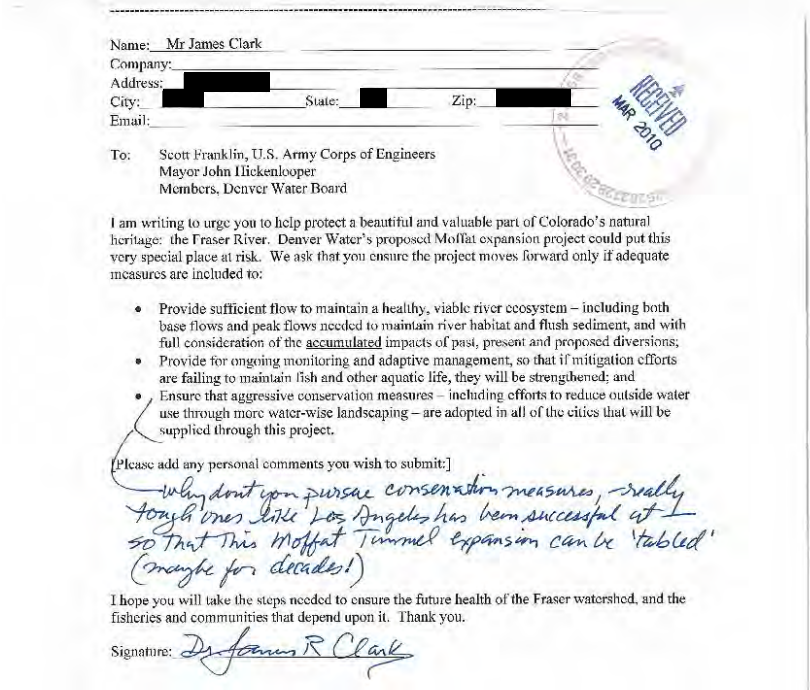
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1439 Sandra McKone-Beeson</p>		<p>Unique Comment #1439-2 (ID 2730): <i>We are losing protection. We should have saved more long time ago. Our population is expanding too rapidly -- we need parks for all of us unwind in -- esp. quite places -- stress will get greater.</i></p> <p>Response #1439-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


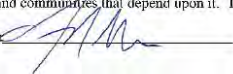
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1443 Lauren Bussey</p>	 <p>Name: <u>Lauren Bussey</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I am increasingly concerned about the declining health of Colorado's rivers through assorted diversions and pollution. Rivers are living systems that are key to the healthy ecosystems upon which humans depend for quality of life activities and survival itself. We delude ourselves to think that the cumulative effects of gradual flow reductions do not threaten future health of the river. Let's not set the Fraser up for an early demise!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Lauren Bussey</i></p>	<p>Unique Comment #1443-2 (ID 2731): <i>I am increasingly concerned about the declining health of Colorado's rivers through assorted diversions and pollution. Rivers are living systems that are key to the healthy ecosystems upon which humans depend for quality of life activities and survival itself. We delude ourselves to think that the cumulative effects of gradual flow reductions do not threaten future health of the rivers. Let's not set the Fraser up for an early demise.</i></p> <p>Response #1443-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1446 James Clark</p>	 <p>Name: Mr James Clark Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Why don't you pursue conservation measures, really tough ones like Los Angeles has been successful at so that this Moffat Tunnel expansion can be 'tabled' (maybe for decades!)</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>James R Clark</i></p>	<p>Unique Comment #1446-2 (ID 2732): <i>Why don't you pursue conservation measures, really tough ones like Los Angeles has been successful at so that this Moffat Tunnel expansion can be 'tabled' (maybe for decades!).</i></p> <p>Response #1446-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>

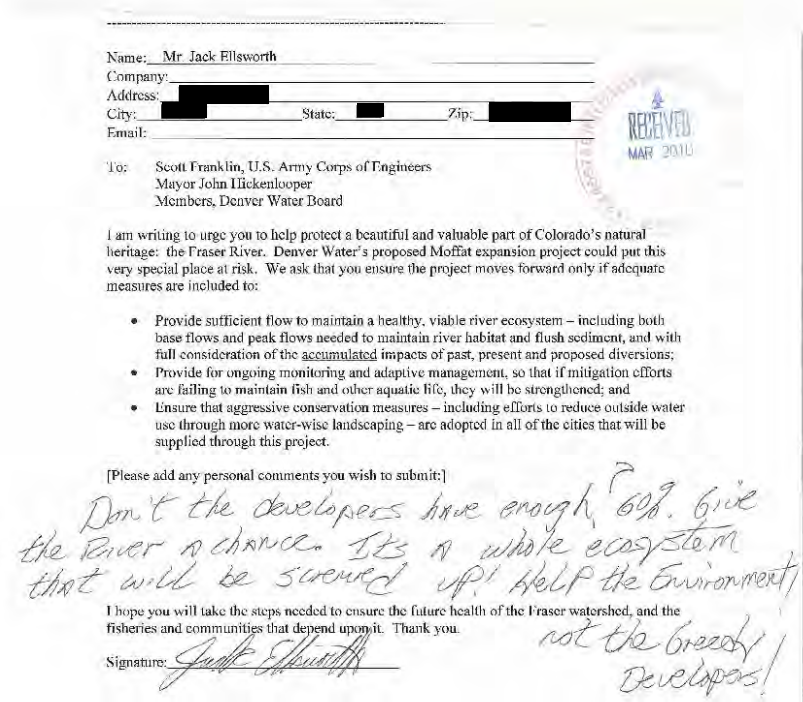
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1456 Adam Marshall</p>	 <p>Name: Mr. Adam Marshall Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>FRONT RANGE POPULATION GROWTH MUST UNDERSTAND THE TRUE COSTS TO EXPANSION. FRESH WATER FROM COLORADO'S HIGH COUNTRY IS ALREADY OVER DISTRIBUTED TO NEARBY STATES. IT IS TIME TO PUT THE BRAKES ON THE MOFFAT EXPANSION PROJECT.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: </p>	<p>Unique Comment #1456-2 (ID 2733): <i>Front Range population growth must understand the true costs to expansion. Fresh water from Colorado's high country is already over distributed to nearby states. It is time to put the brakes on the Moffat Expansion Project!</i></p> <p>Response #1456-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

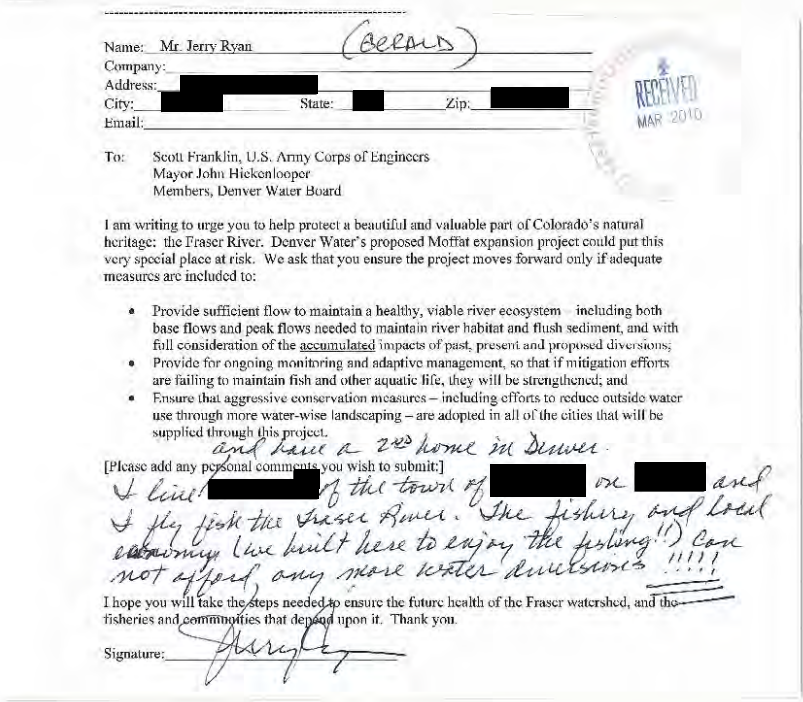
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1459 Shane McDermott</p>	 <p>Name: Shane McDermott Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Save the Fraser River</i></p> <p>1</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Signature]</i></p>	<p>Unique Comment #1459-2 (ID 2734): <i>Save the Fraser River!</i></p> <p>Response #1459-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

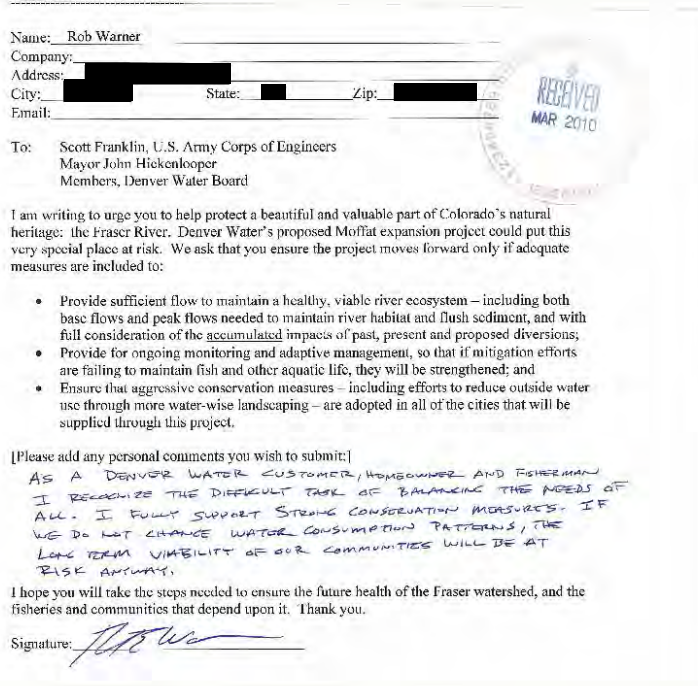
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1462 Jack Ellsworth</p>	 <p>Name: Mr. Jack Ellsworth Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Don't the developers have enough? 60%. Give the river a chance. It's a whole ecosystem that will be screwed up! Help the environment! Not the greedy developers!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Jack Ellsworth</i></p>	<p>Unique Comment #1462-2 (ID 2735): <i>Don't the developers have enough? 60%. Give the river a chance. It's a whole ecosystem that will be screwed up! Help the environment! Not the greedy developers!</i></p> <p>Response #1462-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1466 Jerry (Gerald) Ryan</p>	 <p>Name: Mr. Jerry Ryan (BEPAD) Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] and have a 2nd home in Denver. I live [redacted] of the town of [redacted] on [redacted] and I fly fish the Fraser River. The fishery and local economy (we built here to enjoy the fishing!!) can not afford any more water diversions!!!!</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Handwritten Signature]</i></p>	<p>Unique Comment #1466-2 (ID 2736): <i>I live and have a 2nd home in Denver [redacted] of the town of [redacted] on [redacted] and I fly fish the Fraser River. The fishery and local economy (we built here to enjoy the fishing!!) cannot afford any more water diversions!!!!</i></p> <p>Response #1466-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1470 Rob Warner</p>	 <p>Name: Rob Warner Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>AS A DENVER WATER CUSTOMER/HOMEOWNER AND FISHERMAN I RECOGNIZE THE DIFFICULT TASK OF BALANCING THE NEEDS OF ALL. I FULLY SUPPORT STRONG CONSERVATION MEASURES. IF WE DO NOT CHANGE WATER CONSUMPTION PATTERNS, THE LONG TERM VIABILITY OF OUR COMMUNITIES WILL BE AT RISK ANYWAY.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Rob Warner</i></p>	<p>Unique Comment #1470-2 (ID 2737): <i>As a Denver Water customer, homeowner and fisherman I recognize the difficult task of balancing the needs of all. I fully support strong conservation measures. If we do not change water consumption patterns, the long term viability of our communities will be at risk anyway.</i></p> <p>Response #1470-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

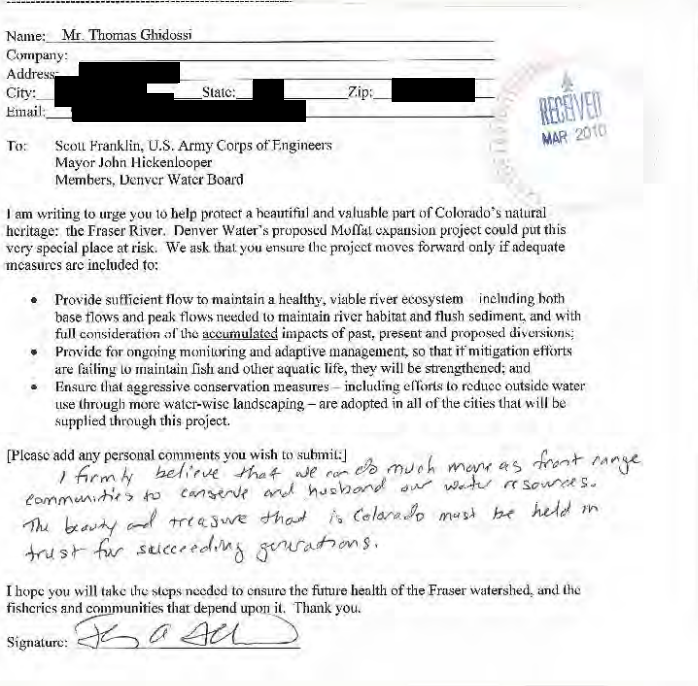
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1474 Charlene Heins</p>	<div style="text-align: center;">  </div>	<p>Unique Comment #1474-1 (ID 2738): <i>As a resident of the Winter Park, Fraser & Tabernash end of Grand County, I very much value the Fraser River & its tributaries. This river and the fisheries it supports are vital to the health and economic future of these communities. Additionally, without wise management of the rivers throughout Colorado, I predict the future of tourism in all of Colorado will decline. It's time for the front range especially and the entire state to fully embrace conservation or suffer the consequences.</i></p> <p>Response #1474-1: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water</p>

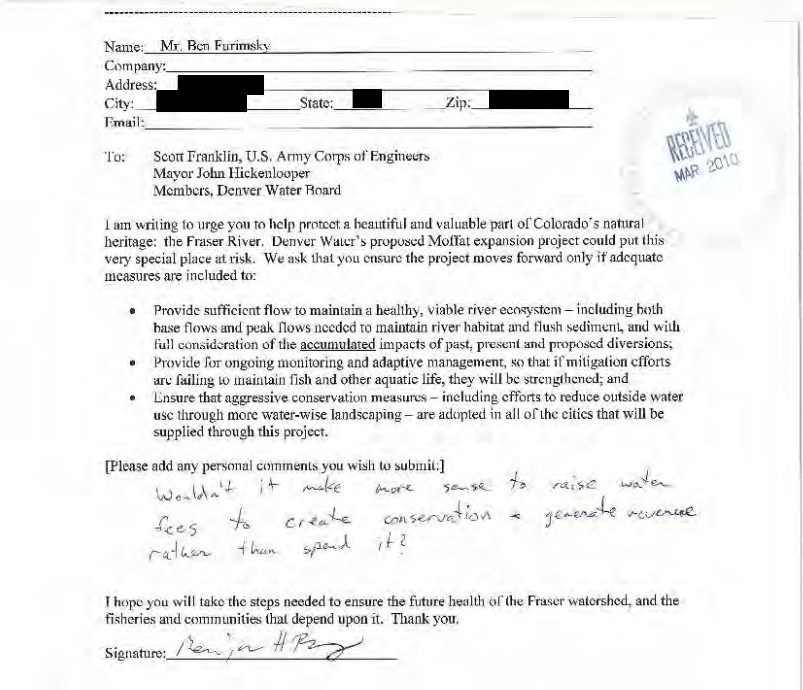
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
		accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.

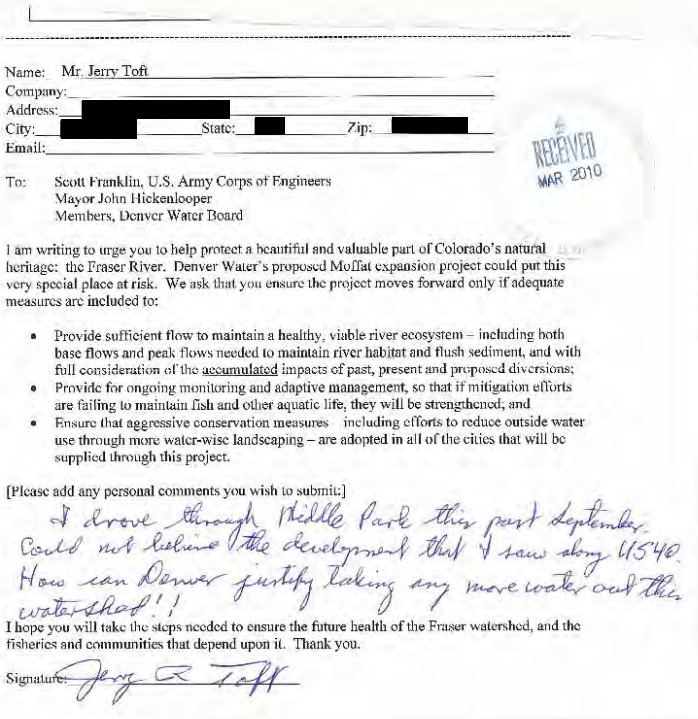
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1480 Thomas Ghidossi</p>	 <p>Name: <u>Mr. Thomas Ghidossi</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I firmly believe that we can do much more as front range communities to conserve and husband our water resources. The beauty and treasure that is Colorado must be held in trust for succeeding generations.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u><i>Thomas Ghidossi</i></u></p>	<p>Unique Comment #1480-2 (ID 2739): <i>I firmly believe that we can do much more as front range communities to conserve and husband our water resources. The beauty and treasure that is Colorado must be held in trust for succeeding generations.</i></p> <p>Response #1480-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

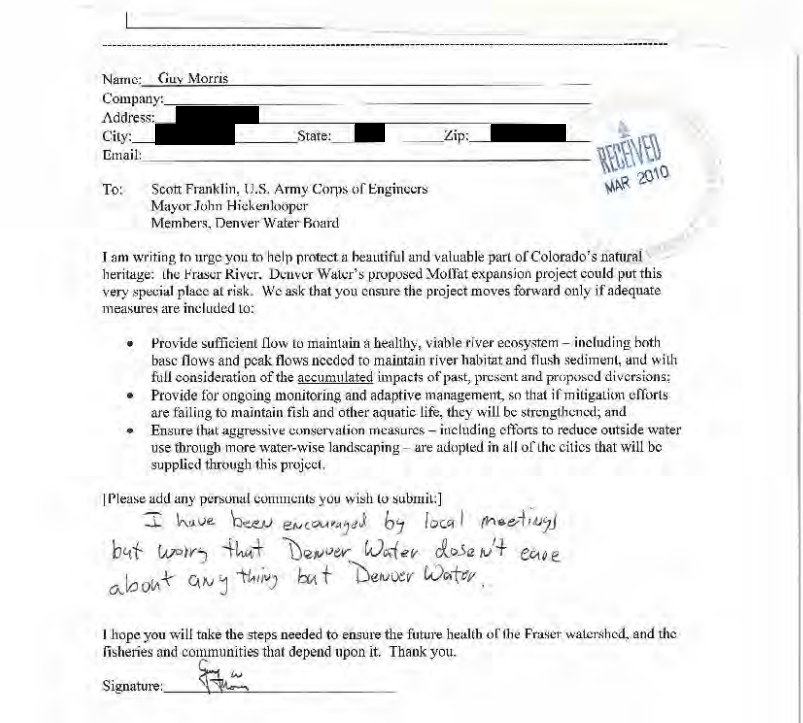
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1482 Ben Furimsky</p>	 <p>Name: Mr. Ben Furimsky Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Wouldn't it make more sense to raise water fees to create conservation & generate revenue rather than spend it?</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Ben Furimsky</i></p>	<p>Unique Comment #1482-2 (ID 2740): <i>Wouldn't it make more sense to raise water fees to create conservation & generate revenue rather than spend it?</i></p> <p>Response #1482-2: All Denver Water Customers are metered. Denver Water implements a Block Census Rate Structure (i.e., the more one uses, the more one pays). Rates are based on a cost of service analysis comprised of customer classes (e.g., residential, industrial, commercial, and institutional) and by whether customers live inside or outside the City and County of Denver. Costs are recovered from each customer class in proportion to the cost of providing the service to each class. Rates consist of a consumption charge per 1,000 gallons consumed a fixed, per account service charge.</p>

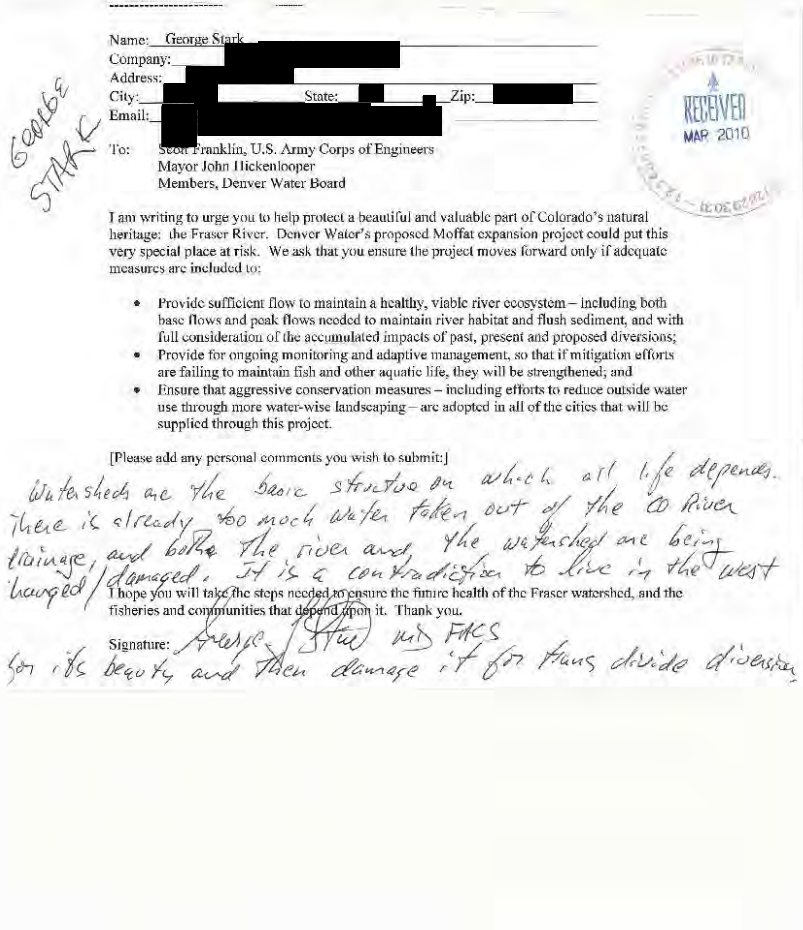
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1486 Jerry Toft</p>	 <p>Name: Mr. Jerry Toft Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I drove through Middle Park this past September. Could not believe the development that I saw along US 40. How can Denver justify taking any more water out this watershed!!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Jerry R Toft</i></p>	<p>Unique Comment #1486-2 (ID 2741): <i>I drove through Middle Park this past September. Could not believe the development that I saw along US 40. How can Denver justify taking any more water out this watershed!!</i></p> <p>Response #1486-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1489 Guy Morris</p>	 <p>Name: Guy Morris Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I have been encouraged by local meetings but worry that Denver Water doesn't care about anything but Denver Water.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Guy Morris</i></p>	<p>Unique Comment #1489-2 (ID 2742): <i>I have been encouraged by local meetings but worry that Denver Water doesn't care about anything but Denver Water.</i></p> <p>Response #1489-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1495 George Stark [REDACTED] [REDACTED] [REDACTED]</p>	 <p>Name: George Stark Company: [REDACTED] Address: [REDACTED] City: [REDACTED] State: [REDACTED] Zip: [REDACTED] Email: [REDACTED] To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>Watersheds are the basic structure on which all life depends. There is already too much water taken out of the CO River drainage, and both the river and the watershed are being changed/damaged. It is a contradiction to live in the west I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: George Stark and FACS for its beauty, and then damage it for trans divide diversion</p>	<p>Unique Comment #1495-2 (ID 2743): <i>Watersheds are the basic structure on which all life depends. There is already too much water taken out of the CO River drainage, and both the river and the watershed are being changed/damaged. It is a contradiction to live in the west for its beauty and then damage it for trans divide diversion.</i></p> <p>Response #1495-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

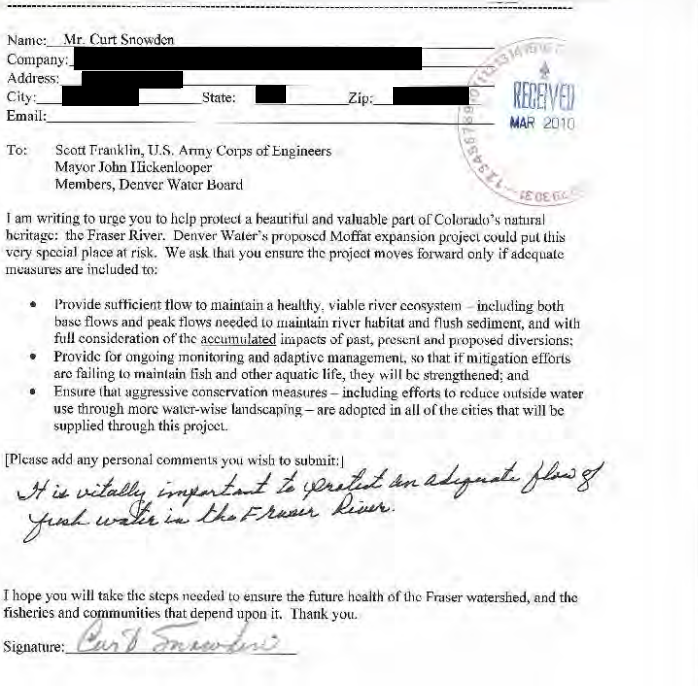
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1496 Roger Hedlund</p>	<div> <p>Name: <u>Mr. Roger Hedlund</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>While Denver Water is proposing to dewater the Fraser, the Northern Water Conservancy District has plans to dewater the Upper Colorado River. Denver Water's draft EIS fails to acknowledge the impact of these two projects, which are running simultaneously, on the Colorado River. If both of these projects are approved, only 26% of the natural flows will remain in the Upper Colorado. The Draft EIS must include the impacts and mitigation to address these effects.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u><i>Mr. Roger Hedlund</i></u></p> </div>	<p>Unique Comment #1496-2 (ID 2744): <i>While Denver Water is proposing to dewater the Fraser, the Northern Water Conservancy District has plans to dewater the Upper Colorado River. Denver Water's draft EIS fails to acknowledge the impact of these two projects, which are running simultaneously will have on the Colorado River. If both of these projects are approved, only 26% of the natural flows will remain in the Upper Colorado. The Draft EIS must include the impacts and mitigation to address these effects.</i></p> <p>Response #1496-2: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of Front Range entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p>

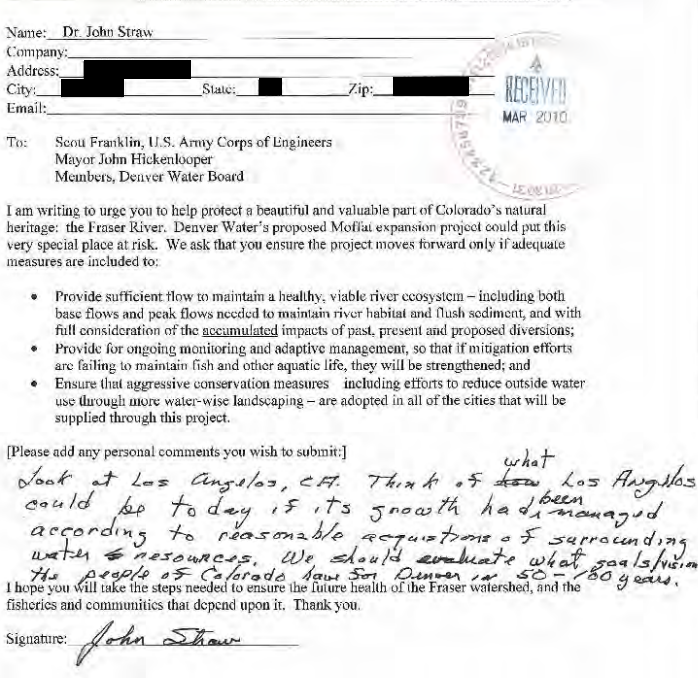
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
		Appropriate conceptual mitigation is discussed in FEIS Appendix M and, if a Section 404 Permit is issued, mitigation will be included as a condition of the Section 404 Permit.

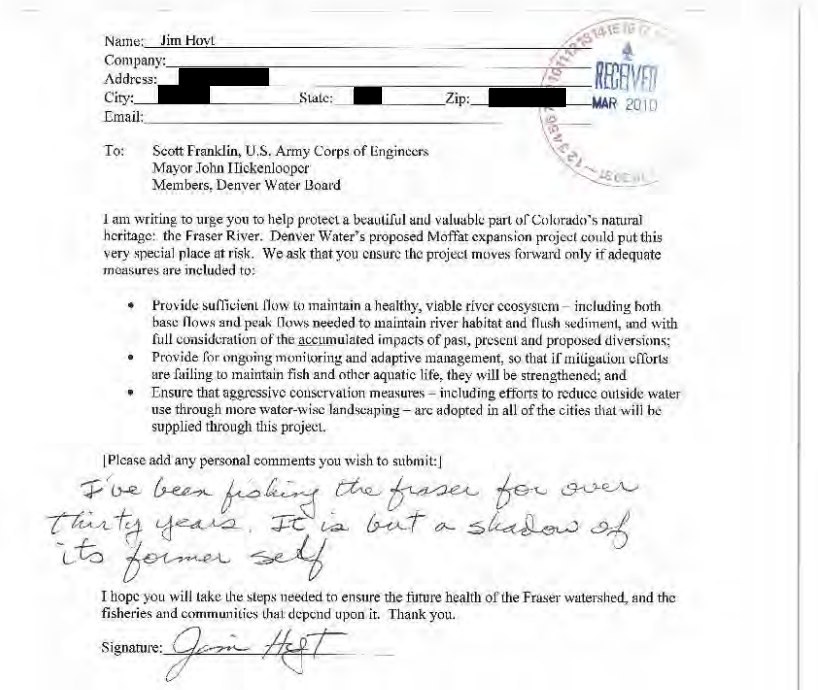
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1497 Curt Snowden [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]</p>	 <p>Name: Mr. Curt Snowden Company: [REDACTED] Address: [REDACTED] City: [REDACTED] State: [REDACTED] Zip: [REDACTED] Email: [REDACTED]</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>It is vitally important to protect an adequate flow of fresh water in the Fraser River.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Curt Snowden</i></p>	<p>Unique Comment #1497-2 (ID 2745): <i>It is vitally important to protect an adequate flow of fresh water in the Fraser River.</i></p> <p>Response #1497-2: The Corps notes the comment.</p>

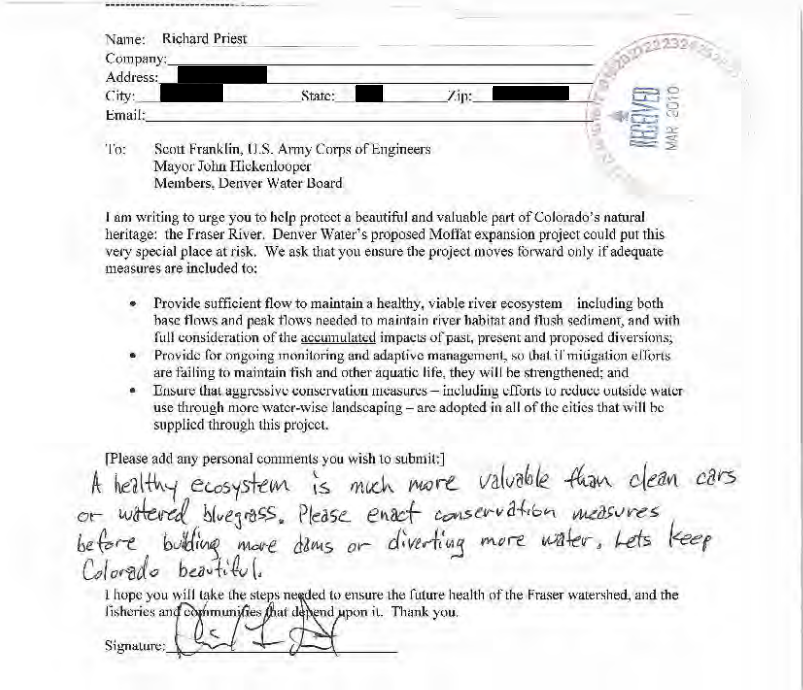
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1498 Dr. John Straw</p>	 <p>Name: <u>Dr. John Straw</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Look at Los Angeles, CA. Think of ^{what} how Los Angeles could be today if its growth had been managed according to reasonable acquisitions of surrounding water resources. We should evaluate what goals/vision the people of Colorado have for Denver in 50-100 years.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>John Straw</u></p>	<p>Unique Comment #1498-2 (ID 2746): <i>Look at Los Angeles, CA. Think of what Los Angeles could be today if its growth had been managed according to reasonable acquisitions of surrounding water resources. We should evaluate what goals/vision the people of Colorado have for Denver over 50-100 years.</i></p> <p>Response #1498-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

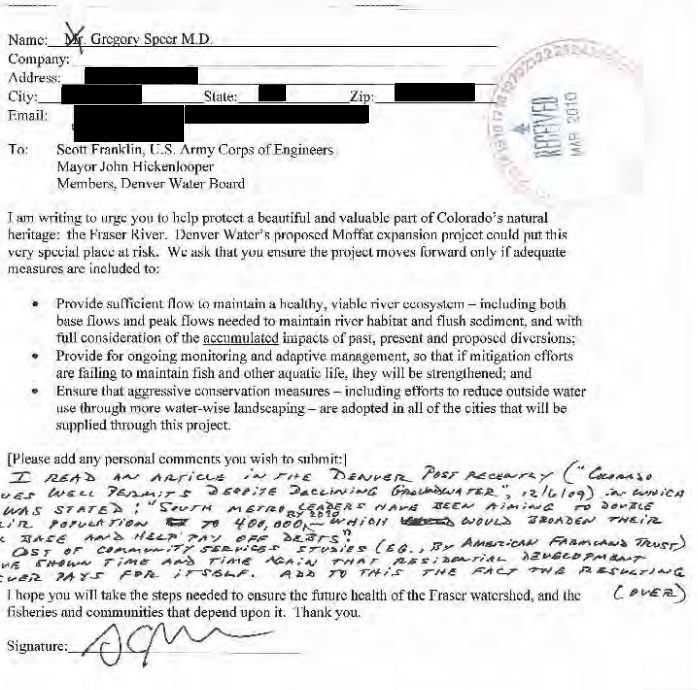
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1499 Jim Hoyt</p>	 <p>Name: <u>Jim Hoyt</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I've been fishing the Fraser for over thirty years. It is but a shadow of its former self</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Jim Hoyt</u></p>	<p>Unique Comment #1499-2 (ID 2747): <i>I've been fishing the Fraser for over thirty years. It is but a shadow of its former self.</i></p> <p>Response #1499-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1508 Richard Priest</p>	 <p>Name: Richard Priest Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>A healthy ecosystem is much more valuable than clean cars or watered bluegrass. Please enact conservation measures before building more dams or diverting more water. Let's keep Colorado beautiful.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Handwritten Signature]</i></p>	<p>Unique Comment #1508-2 (ID 2748): <i>A healthy ecosystem is much more valuable than clean cars or watered bluegrass. Please enact conservation measures before building more dams or diverting more water. Let's keep Colorado beautiful.</i></p> <p>Response #1508-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p>

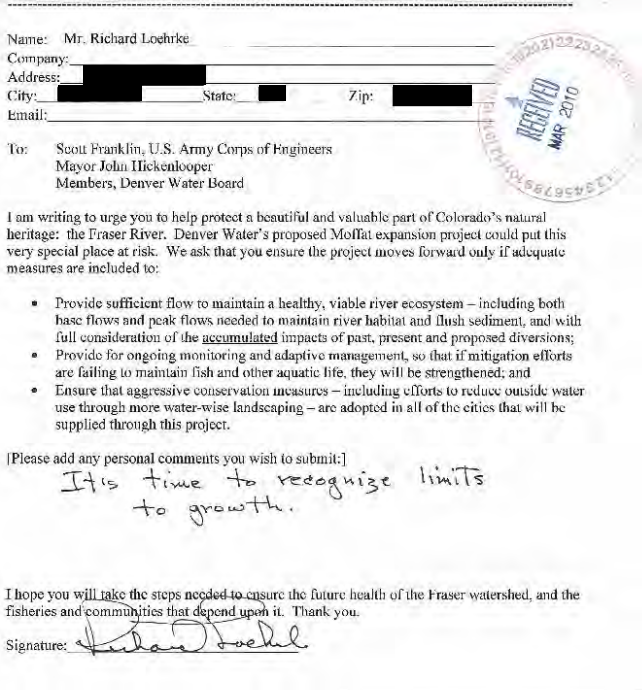
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1551 Gregory Speer, M.D.</p>	 <p>Name: <u>Mr. Gregory Speer M.D.</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I READ AN ARTICLE IN THE DENVER POST RECENTLY ("COLORADO ISSUES WELL PERMITS DESPITE DECLINING GROUNDWATER," 12/6/09) IN WHICH IT WAS STATED: "SOUTH METRO LEADERS HAVE BEEN AIMING TO DOUBLE THEIR POPULATION TO 400,000 BY 2030 -- WHICH WOULD BROADEN THEIR TAX BASE AND HELP PAY OFF DEBTS." COST OF COMMUNITY SERVICES STUDIES (E.G., BY AMERICAN FARMLAND TRUST) HAVE SHOWN TIME AND TIME AGAIN THAT RESIDENTIAL DEVELOPMENT NEVER PAYS FOR ITSELF. ADD TO THIS THE FACT THE RESULTING</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you. (OVER)</p> <p>Signature: <u>[Signature]</u></p>	<p>Unique Comment #1551-1 (ID 2749): <i>I read an article in the Denver Post recently ("Colorado Issues Well Permits Despite Declining Groundwater," 12/6/09) in which it was stated: "South metro leaders have been aiming to double their population to 400,000 by 2030 -- which would broaden their tax base and help pay off debts." Cost of community services studies (e.g., by American Farmland Trust) have shown time and time again that residential development never pays for itself. Add to this the fact the resulting (over).</i></p> <p>NOTE TO FILE: THE BACK OF GREGORY SPEER'S SUBMITTAL CONTAINED NO ADDITIONAL TEXT.</p> <p>Response #1551-1: The South Denver Metropolitan area is not served by Denver Water. New customers and demand coming into Denver Water's Combined Service Area would include commercial and industrial as well as residential customers. The Moffat Project alternatives addressed in this EIS would benefit both existing and future Denver Water customers and would be paid for by both existing and future customers as described in DEIS Section 4.17.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1553 Betty Barr</p>	 <p>Name: Ms. Betty Barr Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem -- including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures -- including efforts to reduce outside water use through more water-wise landscaping -- are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] o Encourage less personal water usage</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: S. Barr</p>	<p>Unique Comment #1553-2 (ID 2750): <i>Encourage less personal water usage.</i></p> <p>Response #1553-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

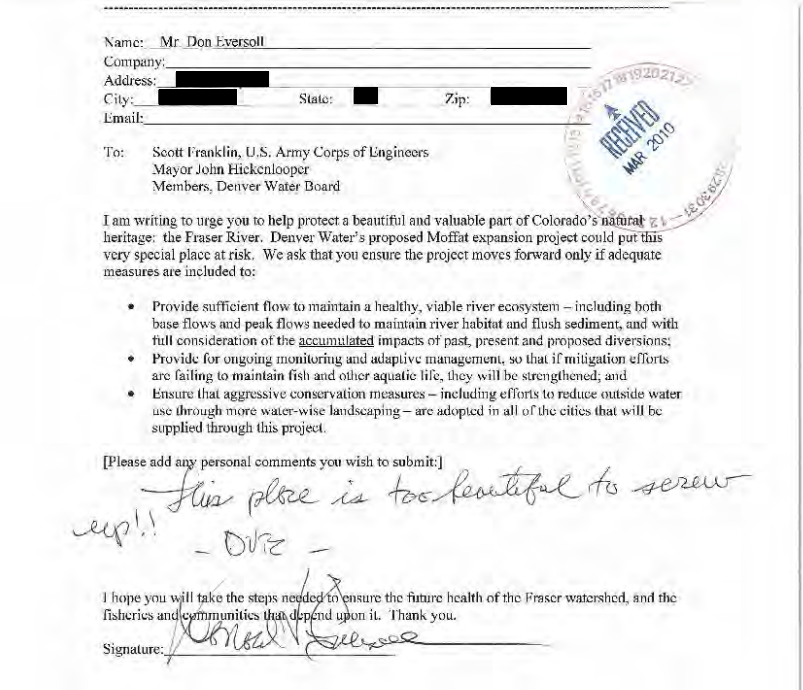
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1556 Richard Loehrke</p>	 <p>Name: Mr. Richard Loehrke Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>(Please add any personal comments you wish to submit:) <i>It's time to recognize limits to growth.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Richard Loehrke</i></p>	<p>Unique Comment #1556-2 (ID 2751): <i>It's time to recognize limits to growth.</i></p> <p>Response #1556-2: The Corps notes the comment.</p>

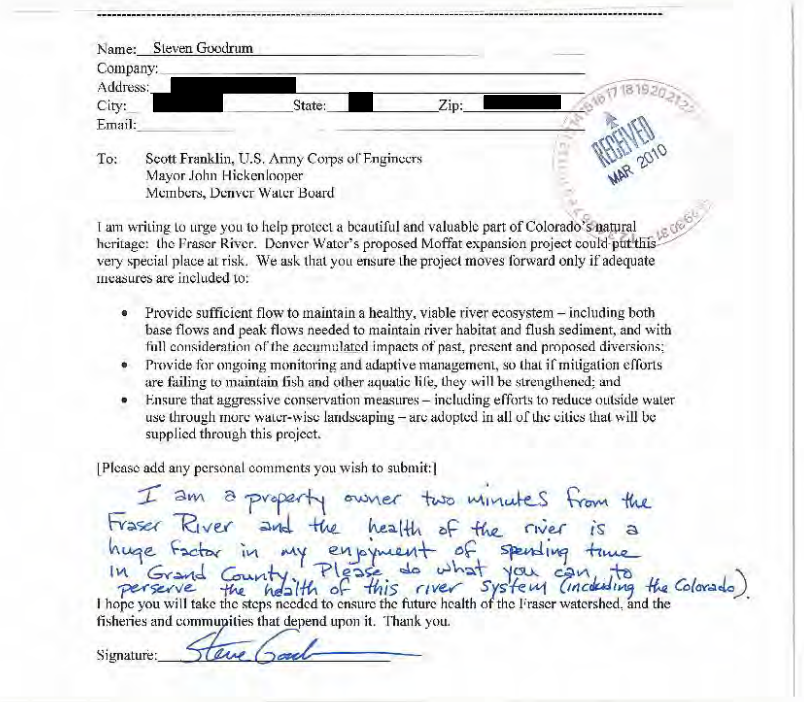
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1559 Frank Cada</p>	<div> <p>Name: Mr. Frank Cada Company: Address: City: State: Zip: Email: To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I fished the Fraser twice in 2009, what a great river. Fishing is great! It is a unique river that provides great rewards for those willing to walk a bit. There is also easy access.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Frank Cada</i></p> </div>	<p>Unique Comment #1559-2 (ID 2752): <i>I fished the Fraser twice in 2009, what a great river. Fishing is great! It is a unique river that provides great rewards for those willing to walk a bit. There is also easy access.</i></p> <p>Response #1559-2: The Corps notes the comment.</p>

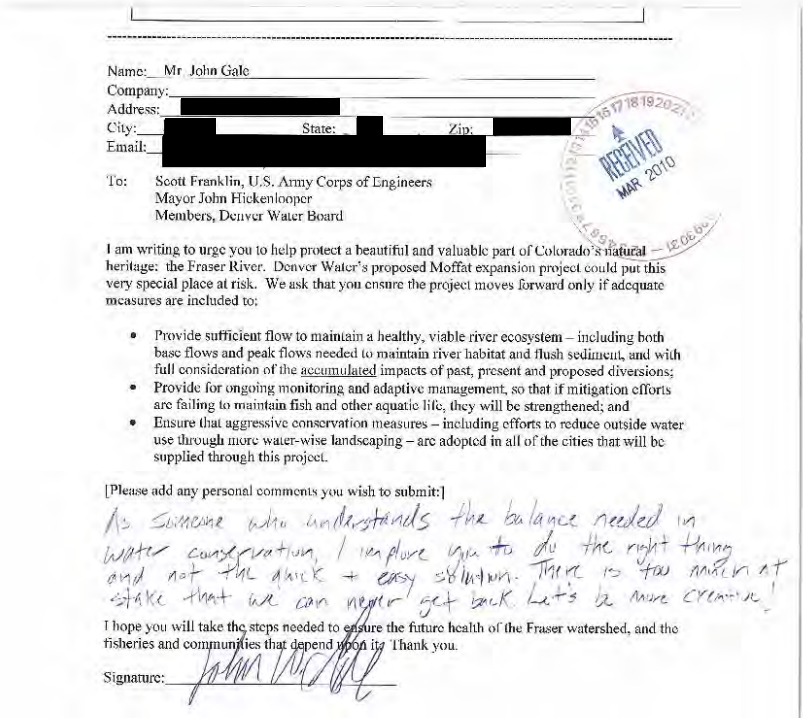
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1562 Don Eversoll</p>	 <p>Name: <u>Mr. Don Eversoll</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hicknlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>This place is too beautiful to screw up!! – Over –</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Don Eversoll</u></p>	<p>Unique Comment #1562-2 (ID 2753): <i>This place is too beautiful to screw up!! – Over-</i></p> <p>NOTE TO FILE: THE BACK OF DON EVERSOLL'S SUBMITTAL CONTAINED NO ADDITIONAL TEXT.</p> <p>Response #1562-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

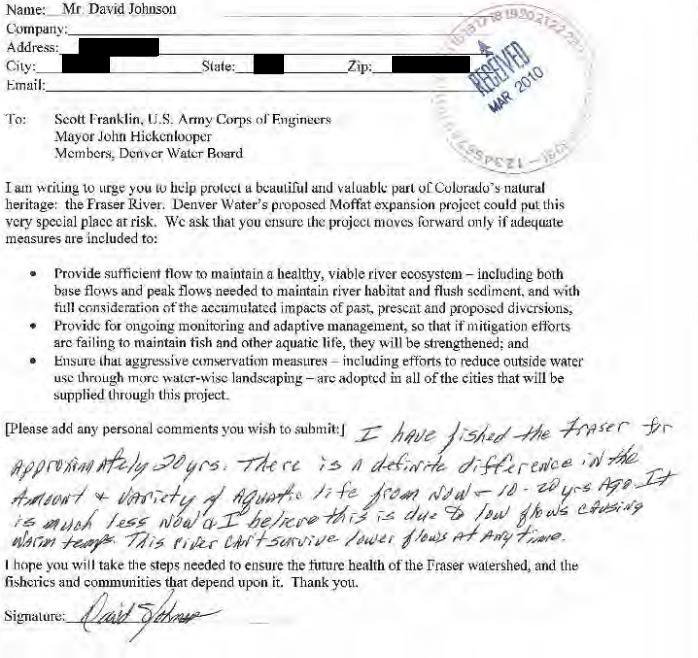
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1565 Steven Goodrum</p>	 <p>Name: <u>Steven Goodrum</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I am a property owner two minutes from the Fraser River and the health of the river is a huge factor in my enjoyment of spending time in Grand County. Please do what you can to preserve the health of this river system (including the Colorado).</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Steve Goodrum</u></p>	<p>Unique Comment #1565-2 (ID 2754): <i>I am a property owner two minutes from the Fraser River and the health of the river is a huge factor in my enjoyment of spending time in Grand County. Please do what you can to preserve the health of this river system (including the Colorado).</i></p> <p>Response #1565-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

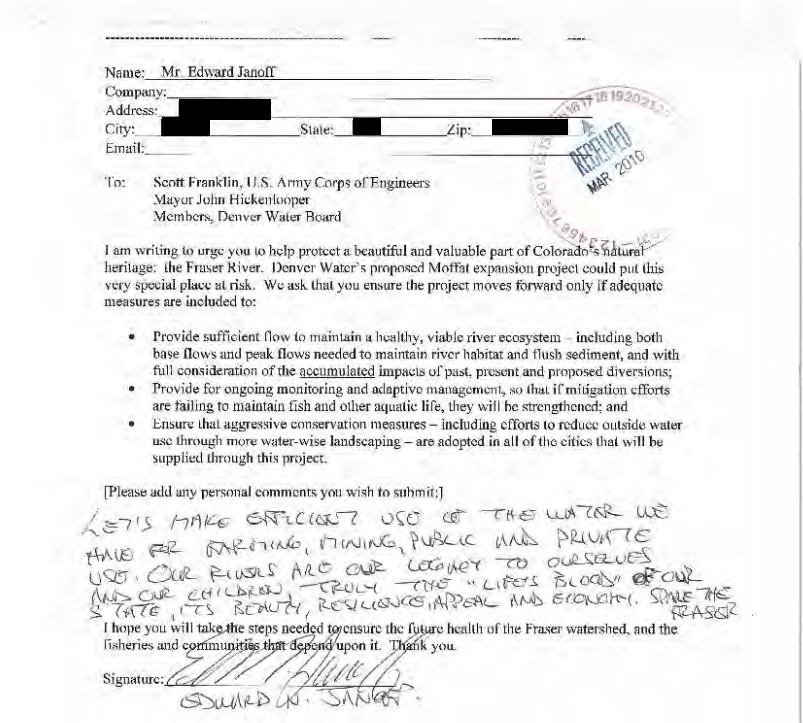
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1577 John Gale</p>	 <p>Name: Mr. John Gale Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>As someone who understands the balance needed in water conservation, I implore you to do the right thing and not the quick + easy solution. There is too much at stake that we can never get back. Let's be more creative!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>John Gale</i></p>	<p>Unique Comment #1577-2 (ID 2755): <i>As someone who understands the balance needed in water conservation, I implore you to do the right thing and not the quick & easy solution. There is too much at stake that we can never get back. Let's be more creative!</i></p> <p>Response #1577-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

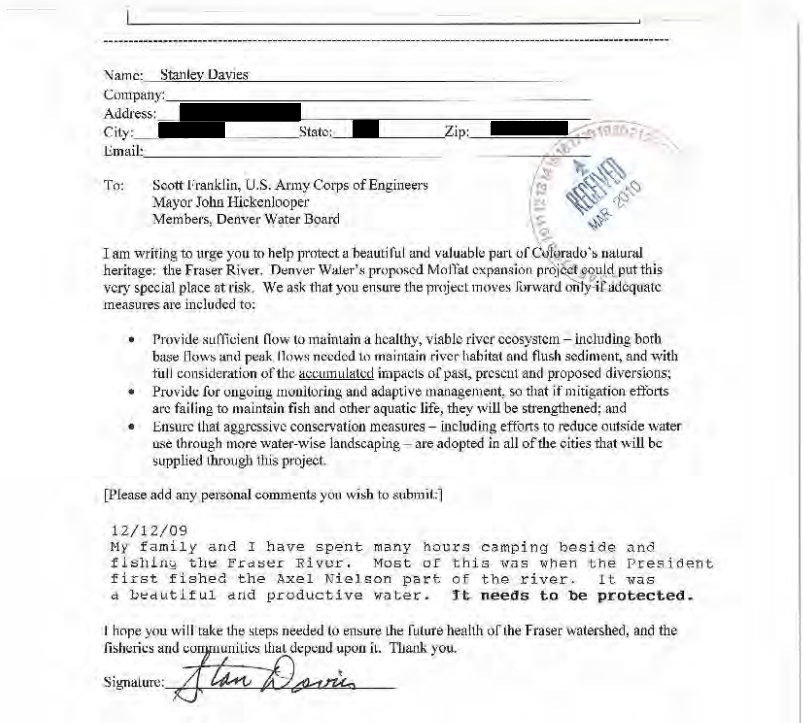
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1578 David Johnson</p>	 <p>Name: Mr. David Johnson Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions, • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] <i>I have fished the Fraser for approximately 20 yrs. There is a definite difference in the amount & variety of aquatic life from now - 10-20 yrs ago. It is much less now & I believe this is due to low flows causing warm temps. This river can't survive lower flows at any time.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>David Johnson</i></p>	<p>Unique Comment #1578-2 (ID 2756): <i>I have fished the Fraser for approximately 20 yrs. There is a definite difference in the amount & variety of aquatic life from now & 10-20 years ago. It is much less now & I believe this is due to low flows causing warm temps. This river can't survive lower flows at any time.</i></p> <p>Response #1578-2: Both the DEIS (Section 3.9) and the FEIS (Section 3.11) discuss the status of fish in the Fraser River and present data from 1985 through 2007. The data do not indicate a decline in fish populations in the last 10-20 years. The limited data on macroinvertebrates (bugs) does not show a decline between 1985 and 2007. Also, the amount of water being diverted has not shown an increasing trend over the last 10-20 years. FEIS Sections 3.11, 4.6.11, and 5.11 have been updated to include revised discussions of these issues including low flows and water temperatures in summer.</p>

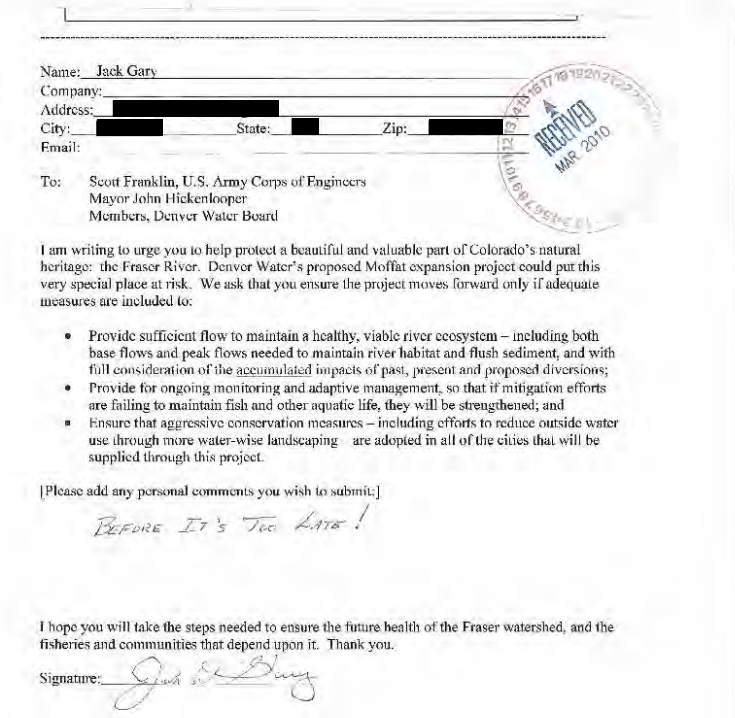
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1579 Edward Janoff</p>	 <p>Name: Mr. Edward Janoff Company: Address: [REDACTED] City: [REDACTED] State: [REDACTED] Zip: [REDACTED] Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>LET'S MAKE EFFICIENT USE OF THE WATER WE HAVE FOR FARMING, MINING, PUBLIC AND PRIVATE USE. OUR RIVERS ARE OUR LEGACY TO OURSELVES AND OUR CHILDREN. TRULY THE "LIFE'S BLOOD" OF OUR STATE, ITS BEAUTY, RESILIENCE, APPEAL AND ECONOMY. SAVE THE FRASER.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Edward Janoff</i> EDWARD JANOFF</p>	<p>Unique Comment #1579-2 (ID 2757): <i>Let's make efficient use of the water we have for farming, mining, public and private use. Our rivers are our legacy to ourselves and our children, truly this "Life's Blood" of our state, its beauty, resilience, appeal and economy. Save the Fraser.</i></p> <p>Response #1579-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

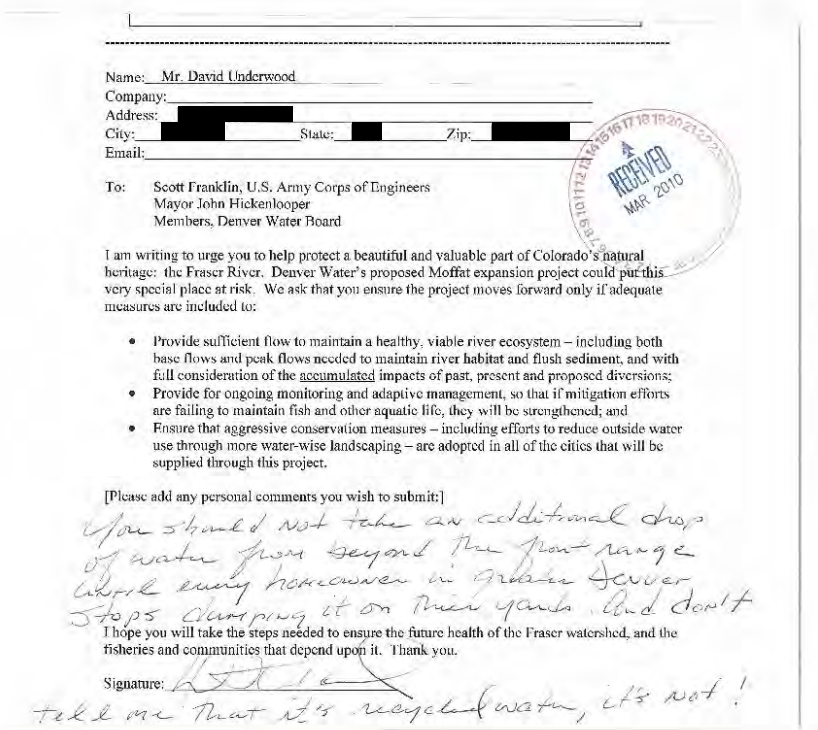
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1580 Stanley Davies</p>	 <p>Name: Stanley Davies Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit.]</p> <p>12/12/09 My family and I have spent many hours camping beside and fishing the Fraser River. Most of this was when the President first fished the Axel Nielson part of the river. It was a beautiful and productive water. It needs to be protected.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Stan Davies</i></p>	<p>Unique Comment #1580-2 (ID 2758): <i>My family and I have spent many hours camping beside and fishing the Fraser River. Most of this was when the President first fished the Axel Nielson part of the river. It was beautiful and productive water. It needs to be protected.</i></p> <p>Response #1580-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

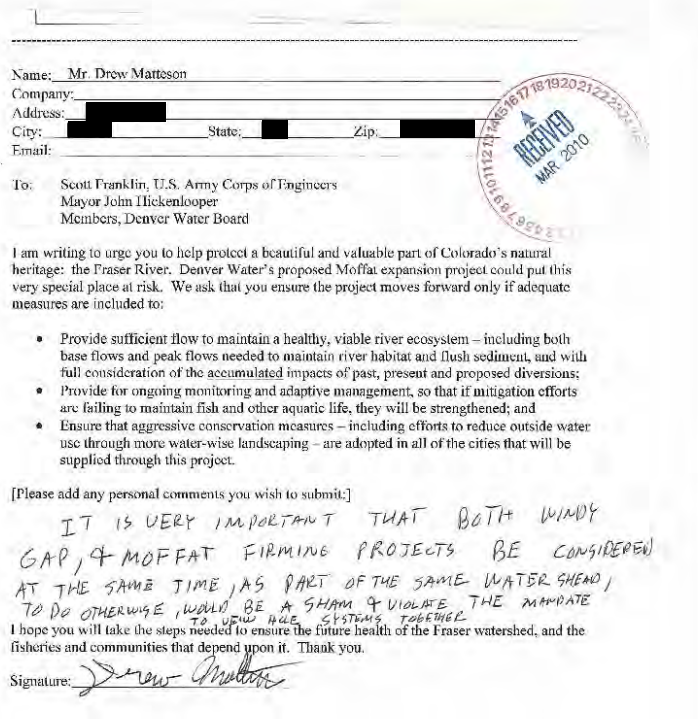
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1581 Jack Gary</p>	 <p>Name: Jack Gary Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>BEFORE IT'S TOO LATE!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Jack Gary</i></p>	<p>Unique Comment #1581-2 (ID 2759): <i>Before it's too late!</i></p> <p>Response #1581-2: The Corps notes the comment.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1582 David Underwood</p>	 <p>Name: <u>Mr. David Underwood</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>You should not take an additional drop of water from beyond the front range until every homeowner in greater Denver stops dumping it on their yards. And don't tell me that it's recycled water, it's not!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Handwritten Signature]</i></p>	<p>Unique Comment #1582-2 (ID 2760): <i>You should not take an additional drop of water from beyond the front range until every homeowner in greater Denver stops dumping it on their yards. And don't tell me that it's recycled water, it's not!</i></p> <p>Response #1582-2: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1583 Drew Matteson</p>	 <p>Name: Mr. Drew Matteson Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>IT IS VERY IMPORTANT THAT BOTH WINDY GAP, & MOFFAT FIRING PROJECTS BE CONSIDERED AT THE SAME TIME AS PART OF THE SAME WATER SHED. TO DO OTHERWISE, WOULD BE A SHAM & VIOLATE THE MANDATE TO VIEW WHOLE SYSTEMS TOGETHER.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Drew Matteson</i></p>	<p>Unique Comment #1583-2 (ID 2761): <i>It is very important that both Windy Gap, & Moffat Firing Projects be considered at the same time, as part of the same watershed, to do otherwise, would be a sham & violate the mandate to view whole systems together.</i></p> <p>Response #1583-2: The DEIS includes the WGFP as part of the analysis because the WGFP is assumed to be on-line in the Full Use of the Existing System scenario. The Corps' analysis evaluates what time of year reductions occur, what type of reductions take place, and the magnitude of reductions; that is, reductions occur only in wet years when the system can absorb the flow changes. Additionally, the Moffat Project and WGFP would not divert West Slope water in dry years. The timing and magnitude of impacts associated with Moffat Project diversions on surface water-related resources such as water quality, aquatic biological resources, and stream morphology, are anticipated to be negligible to minor.</p> <p>DEIS Section 4.1.1.2 under the sub-heading Colorado River Water Quality acknowledges: "The Colorado River from the Fraser River to the Blue River is influenced by a number of Front Range entities, most notably withdrawals from the Fraser River watershed, the C-BT Project, and the Windy Gap Project." Additional water quality analysis has been performed on the Fraser River and the Three Lakes area, including potential effects from the C-BT system. Please refer to FEIS Sections 4.6.2 and 5.2 for a discussion of this analysis.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1584 Francis Bolach</p>	 <p>Name: Mr. Francis Bolach Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p style="color: blue;">WATER USAGE IS OUT OF CONTROL.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Francis Bolach</i></p>	<p>Unique Comment #1584-2 (ID 2762): <i>Water usage is out of control.</i></p> <p>Response #1584-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

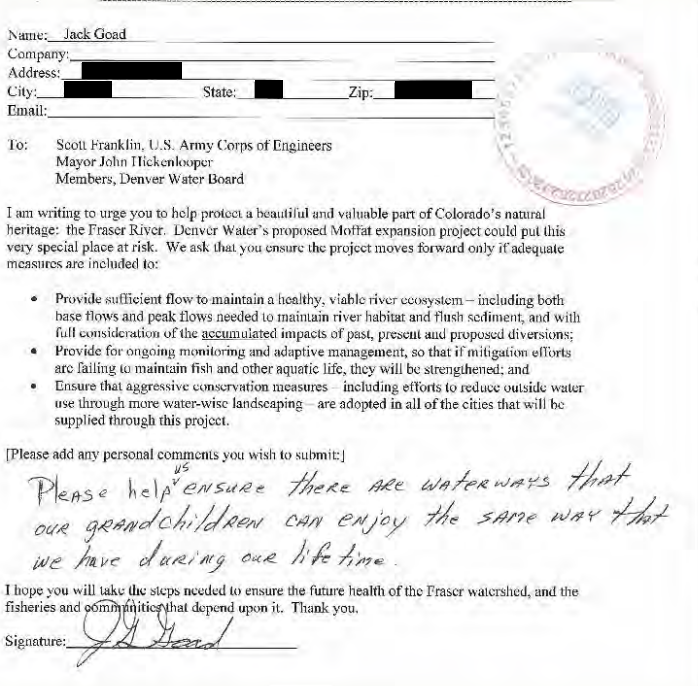
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1585 Thomas Borstad</p>	 <p>Name: Mr. Thomas Borstad Company: [Redacted] Address: [Redacted] City: [Redacted] State: [Redacted] Zip: [Redacted] Email: [Redacted]</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] DENVER WATER SHOULD IMPOSE SOME SERIOUS USE RESTRICTIONS, INCLUDING LAWN WATERING RESTRICTIONS LIKE MOST OTHER METRO AREA COMMUNITIES HAVE, BEFORE ANY CONSIDERATION IS GIVEN TO TAKING MORE WATER FROM THE RIVERS THAT BELONG TO ALL OF US.</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Handwritten Signature]</i></p>	<p>Unique Comment #1585-2 (ID 2763): <i>Denver Water should impose some serious use restrictions, including lawn watering restrictions like most other metro area communities have, before any consideration is given to taking more water from the rivers that belong to all of us.</i></p> <p>Response #1585-2: Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of 18,000 AF. Denver Water is implementing an aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.</p> <p>Denver Water has an aggressive 10-year conservation goal. Starting in 2007, Denver Water accelerated its future conservation and natural replacement goals and developed a conservation program to reduce customers' water use by 22% by 2016. To date, Denver Water customers are using 20% less water than they were prior to the 2002 drought.</p> <p>Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other</p>

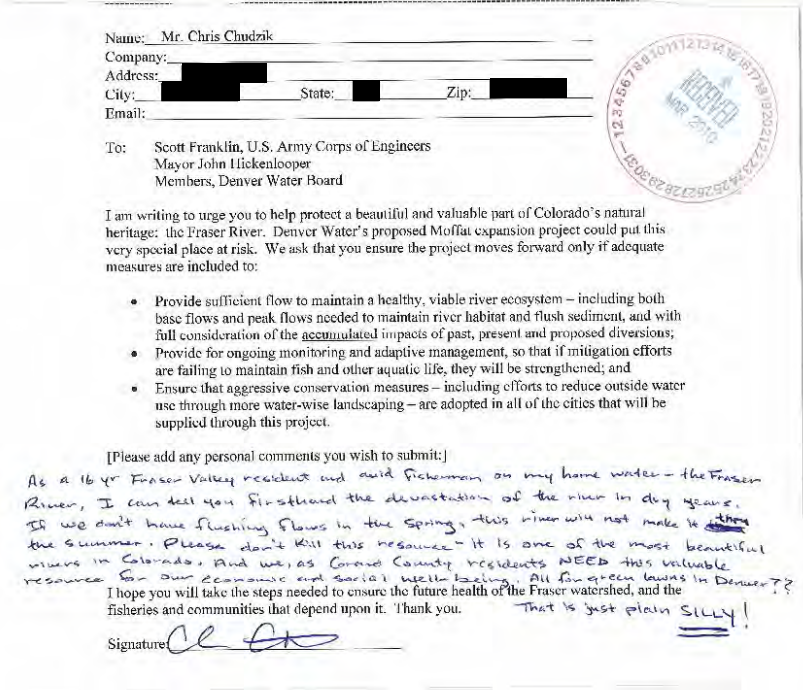
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
		<p>unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

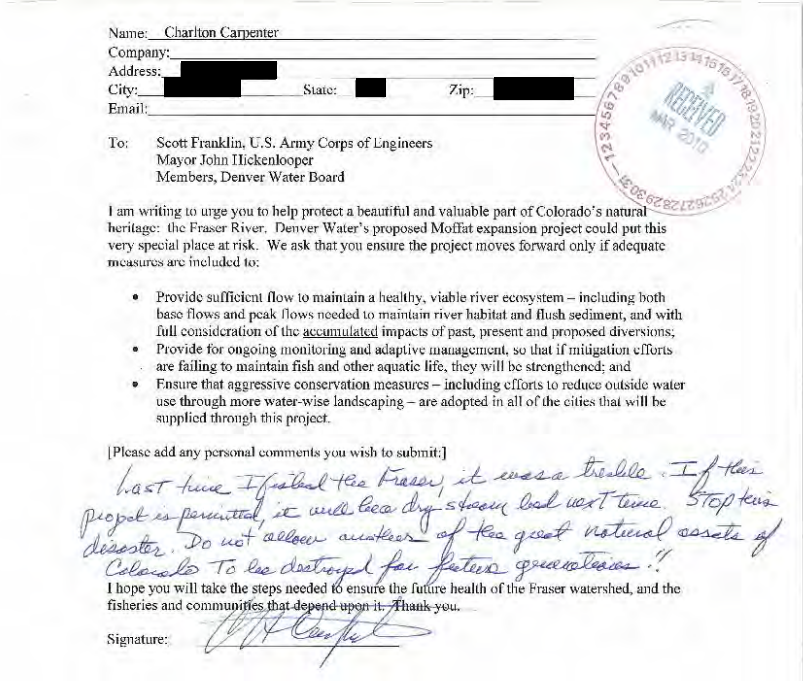
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1586 Jack Goad</p>	 <p>Name: Jack Goad Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Thickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Please help^{us} ensure there are waterways that our grandchildren can enjoy the same way that we have during our life time.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>[Handwritten Signature]</i></p>	<p>Unique Comment #1586-2 (ID 2764): <i>Please help us ensure there are waterways that our grandchildren can enjoy the same way that we have during our lifetime.</i></p> <p>Response #1586-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

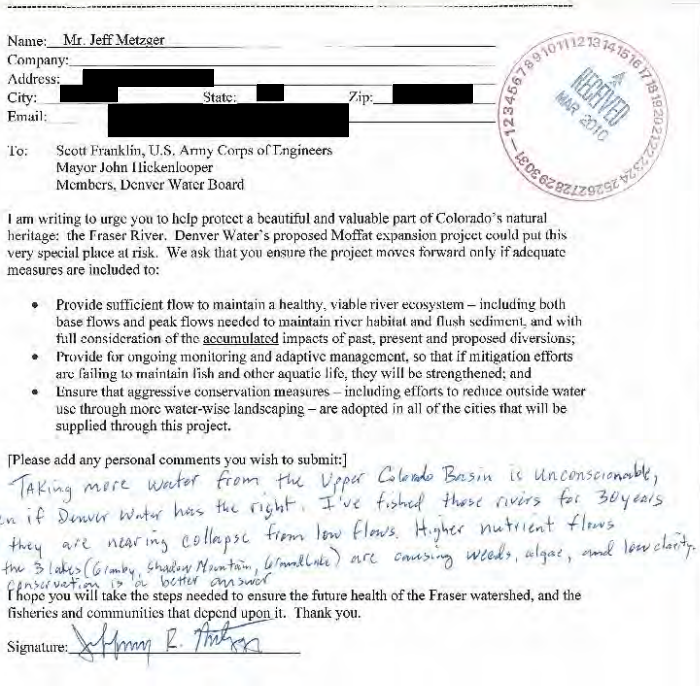
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1587 Chris Chudzik</p>	 <p>Name: Mr. Chris Chudzik Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>As a 16 yr Fraser Valley resident and avid fisherman on my home water – the Fraser River, I can tell you firsthand the devastation of the river in dry years. If we don't have flushing flows in the Spring, this river will not make it thru the summer. Please don't kill this resource – it is one of the most beautiful rivers in Colorado. And we, as Grand County residents NEED this valuable resource for our economic and social well-being. All for green lawns in Denver?? That is just plain SILLY!</i></p> <p>Signature: <i>Cl</i></p>	<p>Unique Comment #1587-2 (ID 2765): <i>As a 16 year Fraser Valley resident and avid fisherman on my home water -- the Fraser River, I can tell you firsthand the devastation of the river in dry years. If we don't have flushing flows in the spring, this river will not make it thru the summer. Please don't kill this resource -- it is one of the most beautiful rivers in Colorado. And we, as Grand County residents NEED this valuable resource for our economic and social well-being. All for green lawns in Denver?? That is just plain silly!</i></p> <p>Response #1587-2: The proposed Project would not divert water during dry years or reduce the current minimum flows. Analysis on flushing flows can be found in FEIS Sections 4.6.3 and 5.3.</p>

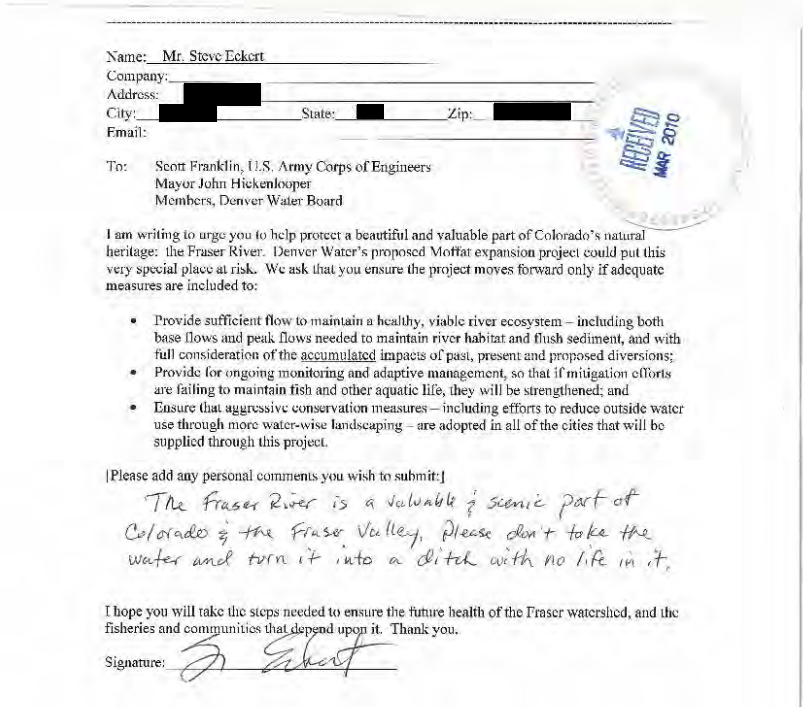
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1588 Charlton Carpenter</p>	 <p>Name: <u>Charlton Carpenter</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Last time I fished the Fraser, it was a trickle. If this project is permitted, it will be a dry stream bed next time. STOP this disaster. Do not allow another of the great natural assets of Colorado to be destroyed for future generations!!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Charlton Carpenter</i></p>	<p>Unique Comment #1588-2 (ID 2766): <i>Last time I fished the Fraser, it was a trickle. If this project is permitted, it will be a dry stream bed next time. STOP this disaster. Do not allow another of the great natural assets of Colorado to be destroyed for future generations!!</i></p> <p>Response #1588-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

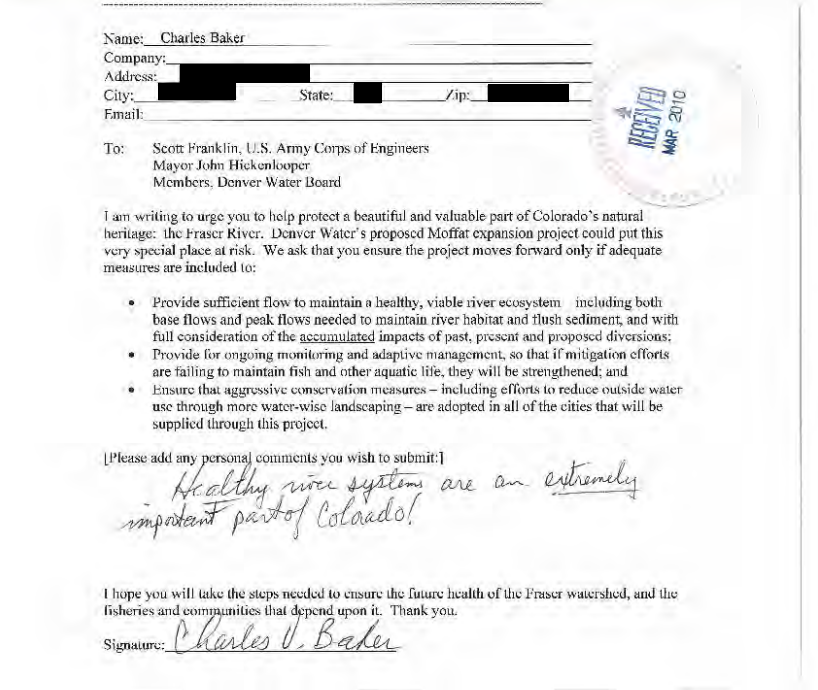
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1589 Jeff Metzger</p>	 <p>Name: Mr. Jeff Metzger Company: Address: City: State: Zip: Email: To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>Taking more water from the Upper Colorado Basin is unconscionable, even if Denver Water has the right. I've fished these rivers for 30 years and they are nearing collapse from low flows. Higher nutrient flows into the 3 lakes (Granby, Shadow Mountain, Grand Lake) are causing weeds, algae, and low clarity. More conservation is a better answer. I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Jeffrey E. Anderson</u></p>	<p>Unique Comment #1589-2 (ID 2767): <i>Taking more water from the Upper Colorado Basin is unconscionable, even if Denver Water has the right. I've fished these rivers for 30 years and they are nearing collapse from low flows. Higher nutrient flows into the 3 lakes (Granby, Shadow Mountain, and Grand Lake) are causing weeds, algae, and low clarity. More conservation is our better answer.</i></p> <p>Response #1589-2: Additional water quality analysis has been performed on the Fraser River and the Three Lakes area. Please refer to FEIS Sections 4.6.2 and 5.2. Please refer to FEIS Appendix M for proposed water quality mitigation measures.</p> <p>Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

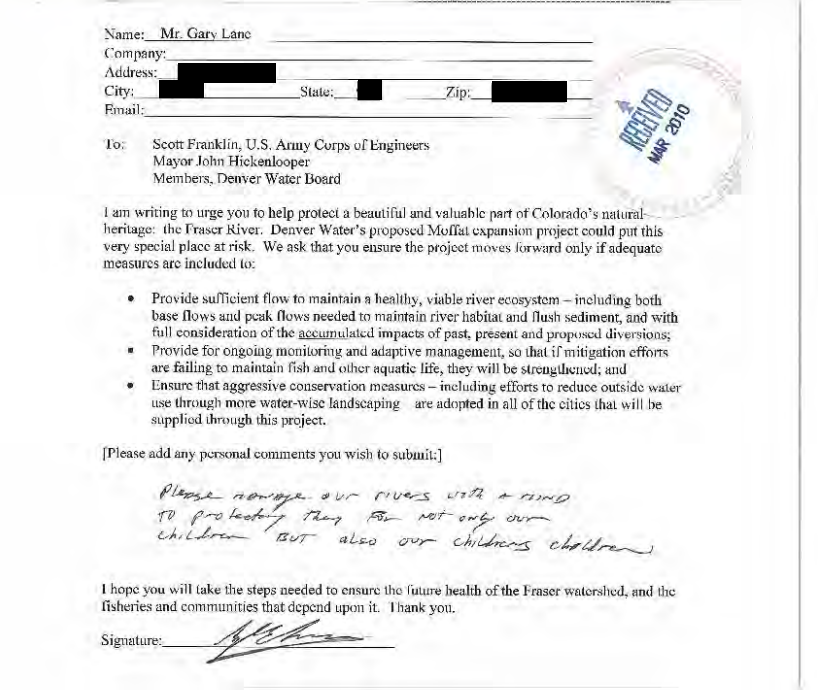
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1590 Steve Eckert</p>	 <p>Name: <u>Mr. Steve Eckert</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures—including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>The Fraser River is a valuable & scenic part of Colorado & the Fraser Valley. Please don't take the water and turn it into a ditch with no life in it.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Steve Eckert</u></p>	<p>Unique Comment #1590-1 (ID 2768): <i>The Fraser River is a valuable & scenic part of Colorado & the Fraser Valley. Please don't take the water and turn it into a ditch with no life in it.</i></p> <p>Response #1590-1: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

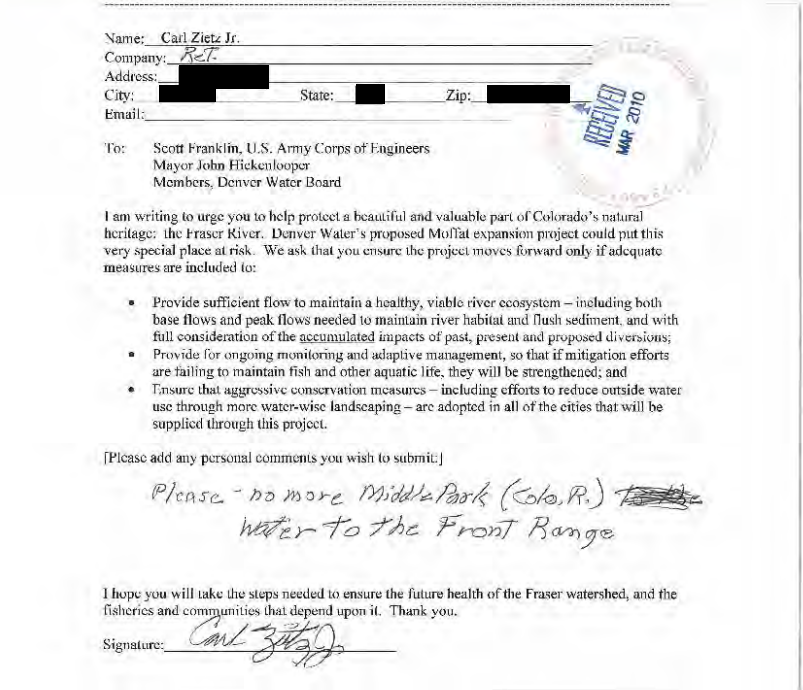
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1591 Charles Baker</p>	 <p>Name: Charles Baker Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Healthy river systems are an extremely important part of Colorado!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Charles V. Baker</i></p>	<p>Unique Comment #1591-2 (ID 2769): <i>Healthy river systems are an extremely important part of Colorado!</i></p> <p>Response #1591-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

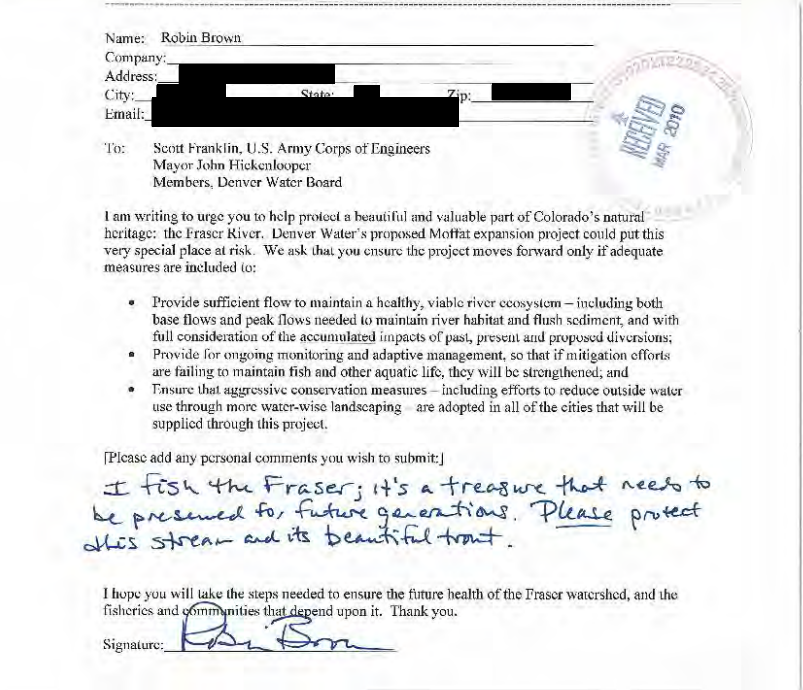
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1592 Gary Lane</p>	 <p>Name: <u>Mr. Gary Lane</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Please manage our rivers with a mind to protecting them for not only our children BUT also our children's children.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u><i>Gary Lane</i></u></p>	<p>Unique Comment #1592-2 (ID 2770): <i>Please manage our rivers with a mind to protecting them for not only our children BUT also our children's children.</i></p> <p>Response #1592-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>


Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1593 Carl Zietz, Jr.</p>	 <p>Name: Carl Zietz Jr. Company: R.E.T. Address: [REDACTED] City: [REDACTED] State: [REDACTED] Zip: [REDACTED] Email: [REDACTED]</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Please - no more Middle Park (Colo. R.) water to the Front Range</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Carl Zietz, Jr.</i></p>	<p>Unique Comment #1593-2 (ID 2771): Please -- no more Middle Park (Col. R.) water to the Front Range.</p> <p>Response #1593-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

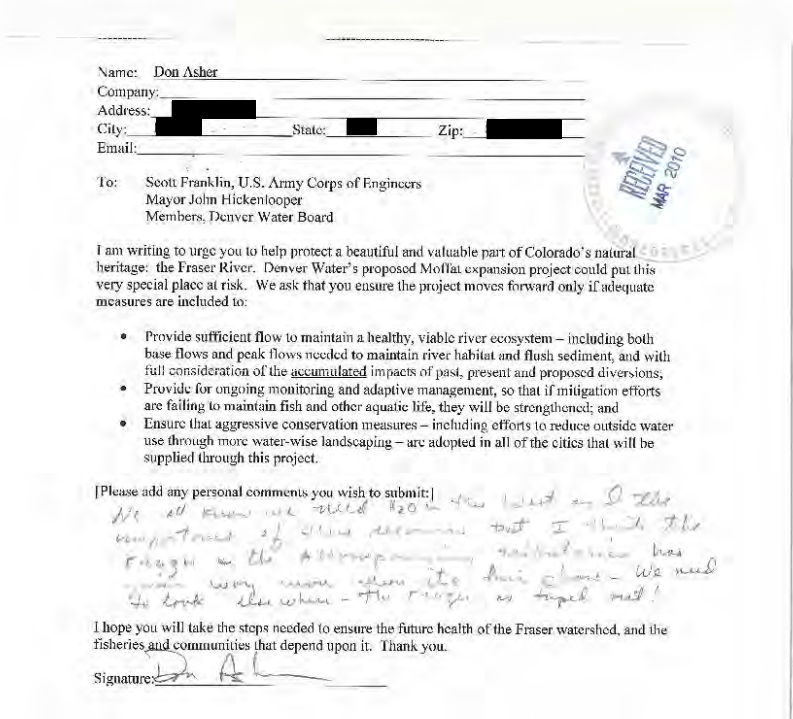
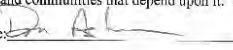
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1594 Robin Brown</p>	 <p>Name: Robin Brown Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I fish the Fraser; it's a treasure that needs to be preserved for future generations. Please protect this stream and its beautiful trout.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Robin Brown</i></p>	<p>Unique Comment #1594-2 (ID 2772): <i>I fish the Fraser; it's a treasure that needs to be preserved for future generations. Please protect this stream and its beautiful trout.</i></p> <p>Response #1594-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

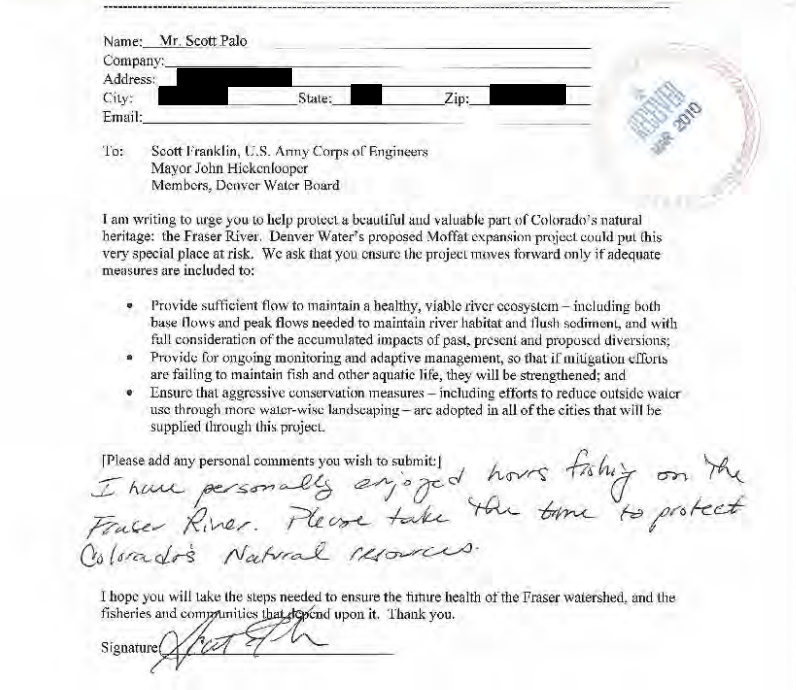
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1595 Mark Winchester</p>	 <p>Name: Mr. Mark Winchester Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p>The you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <p><i>The beetles have killed that valley & a fire will bury it. Don't drown the river, please, or there will be nothing left.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Mark Winchester</i></p>	<p>Unique Comment #1595-2 (ID 2773): <i>The beetles have killed that valley & a fire will bury it. Don't drown the river, please, or there will be nothing left.</i></p> <p>Response #1595-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1596 Don Asher</p>	 <p>Name: Don Asher Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] We all know we need H2O in the west and the importance of this resource but I think the Fraser & the accompanying tributaries have given way more than their fair share. We need to look elsewhere -- the Fraser is taped out!</p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: </p>	<p>Unique Comment #1596-2 (ID 2774): <i>We all know we need H2O in the west and the importance of this resource but I think the Fraser & the accompanying tributaries have given way more than their fair share. We need to look elsewhere -- the Fraser is taped out!</i></p> <p>Response #1596-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

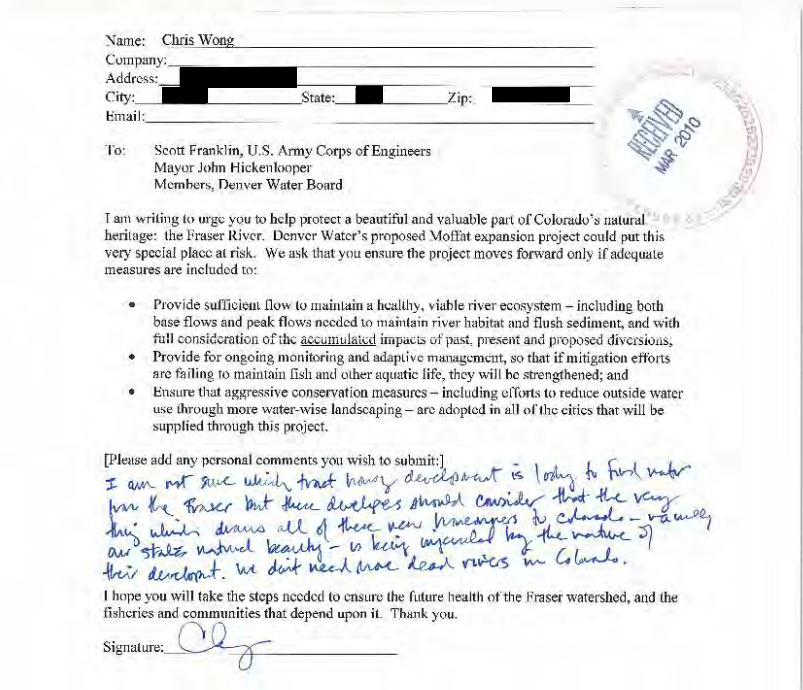
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1597 Scott Palo</p>	 <p>Name: <u>Mr. Scott Palo</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickmlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:] <i>I have personally enjoyed hours fishing on the Fraser River. Please take the time to protect Colorado's Natural Resources.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Scott Palo</i></p>	<p>Unique Comment #1597-2 (ID 2775): <i>I have personally enjoyed hours fishing on the Fraser River. Please take the time to protect Colorado's natural resources.</i></p> <p>Response #1597-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

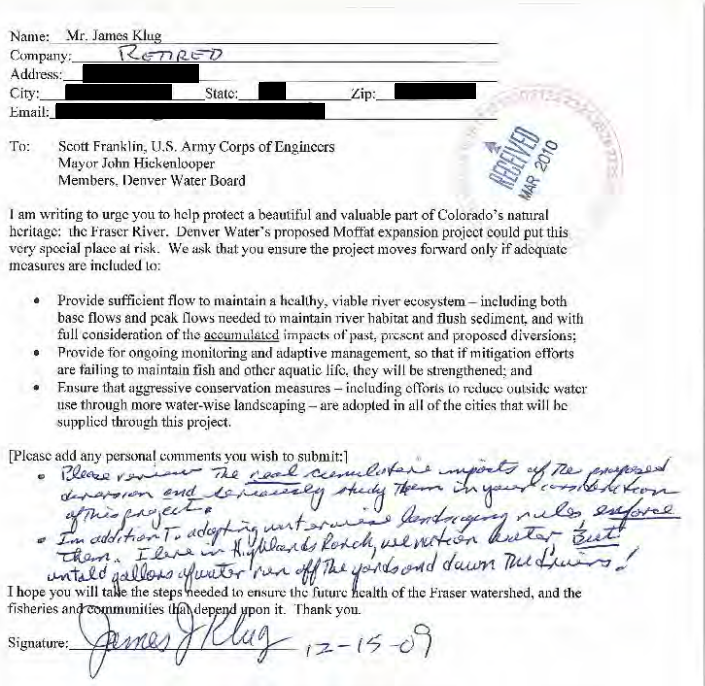
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1598 Albert Merlino</p>	<p>Name: Mr. Albert Merlino Company: Colo DEPT AGRI (RETIRED) BIO CONTROL INSECTARY, PAST MAYOR TOWN OF PUEBLO, CO Address: [REDACTED] City: [REDACTED] State: [REDACTED] Zip: [REDACTED] Email: [REDACTED]</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Dickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Please be prudent with your decisions concerning this project. Once a stream is defiled it will NEVER be the same.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Albert Merlino</i></p>	<p>Unique Comment #1598-2 (ID 2776): <i>Please be prudent with your decisions concerning this project. Once a stream is defiled it will NEVER be the same.</i></p> <p>Response #1598-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

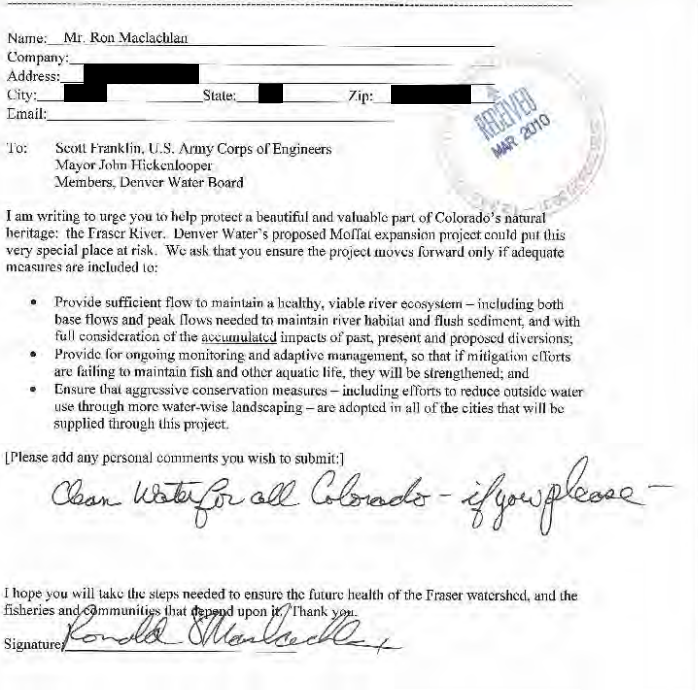
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1599 Chris Wong</p>	 <p>Name: Chris Wong Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I am not sure which tract housing development is looking to find water from the Fraser but these developers should consider that the very thing which draws all of these new homeowners to Colorado -- namely our states natural beauty -- is being imperiled by the nature of their development. We don't need more dead rivers in Colorado.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Chris Wong</i></p>	<p>Unique Comment #1599-2 (ID 2777): <i>I am not sure which tract housing development is looking to find water from the Fraser but these developers should consider that the very thing which draws all of these new homeowners to Colorado -- namely our states natural beauty -- is being imperiled by the nature of their development. We don't need more dead rivers in Colorado.</i></p> <p>Response #1599-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

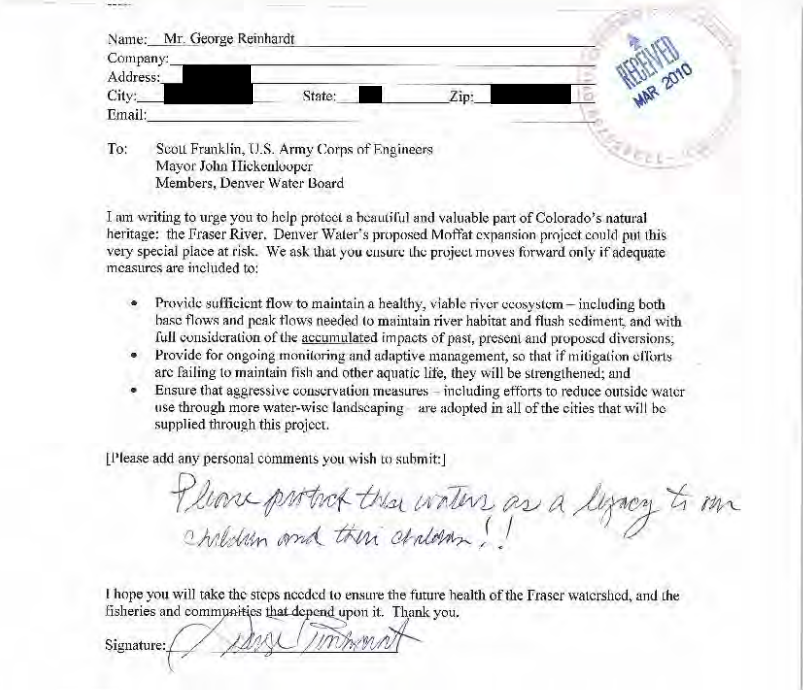
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1600 James Klug</p>	<div style="text-align: center;">  </div>	<p>Unique Comment #1600-2 (ID 2779): <i>Please review the real cumulative impacts of the proposed diversion and seriously study them in your consideration of this project.</i></p> <p>Response #1600-2: As required by NEPA, appropriate levels of impact assessment are accomplished in FEIS Chapters 4 and 5.</p> <p>Unique Comment #1600-3 (ID 2778): <i>In addition to adopting [illegible] [illegible] landscaping rules, enforce them. I live in Highlands Ranch, we ration water, BUT untold gallons of water run off the yards and drain the rivers!</i></p> <p>Response #1600-3: Denver Water does not have the legal authority to direct land-use decisions, including landscaping. But, it does have the power to enact water rules. Denver Water enforces water waste rules per its Operating Rules including mandatory restrictions on the number and times of day (10:00 a.m. – 6:00 p.m.) outside watering cannot occur, prohibiting watering the street and watering in rain or strong wind and other unfavorable conditions. Denver Water employs water-use enforcement officers to make sure customers understand the rules (may lead to fines and water service being interrupted). Additionally, Denver Water requires soil amendments to be incorporated into landscaping before new taps can be placed. Denver Water also educates its customers on the benefits of xeriscaping by hosting workshops and operating xeriscape demonstration gardens in the Denver Metropolitan area.</p> <p>The Corps considers all appropriate and legal measures to mitigate for effects caused by any authorized project according to NEPA and Section 404 regulations.</p>

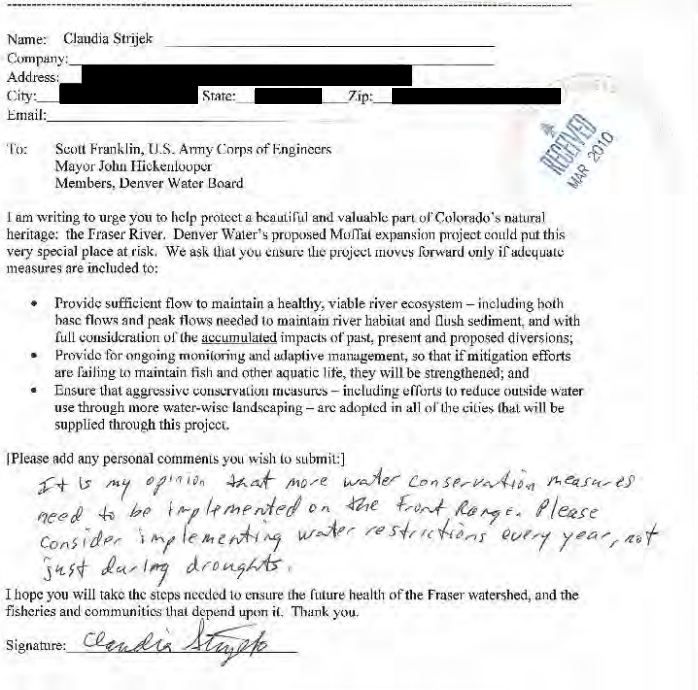
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1601 Ron MacLachlan</p>	 <p>Name: <u>Mr. Ron MacLachlan</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Clean Water for all Colorado - if you please -</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>Ronald MacLachlan</u></p>	<p>Unique Comment #1601-2 (ID 2780): <i>Clean water for all Colorado -- if you please.</i></p> <p>Response #1601-2: The Corps notes the comment. Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1602 George Reinhardt</p>	 <p>Name: Mr. George Reinhardt Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickmoleper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>Please protect the water as a legacy to our children and their children!!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>George Reinhardt</i></p>	<p>Unique Comment #1602-2 (ID 2781): <i>Please protect these waters as a legacy to our children and their children!!</i></p> <p>Response #1602-2: Prior to making decisions on the proposed Project, the Corps will evaluate and consider the Project's environmental effects according to NEPA.</p>

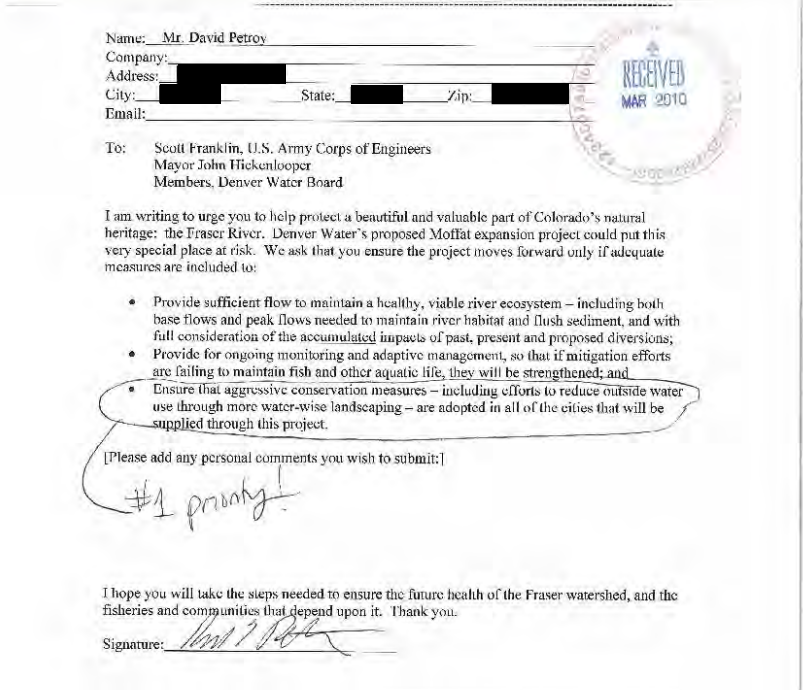
Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1603 Claudia Strijek</p>	 <p>Name: Claudia Strijek Company: Address: City: State: Zip: Email:</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>It is my opinion that more water conservation measures need to be implemented on the Front Range. Please consider implementing water restrictions every year, not just during droughts.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <i>Claudia Strijek</i></p>	<p>Unique Comment #1603-2 (ID 2782): <i>It is my opinion that more water conservation measures need to be implemented on the Front Range. Please consider implementing water restrictions every year, not just during droughts.</i></p> <p>Response #1603-2: Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 AF/yr of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p> <p>Mandatory watering restrictions are designed for short-term reductions in water use and would not independently or reliably meet the required firm yield of 18,000 AF. Denver Water is implementing an aggressive conservation plan in order to achieve sustainable long-term reductions in demand. The expected savings from the conservation plan were subtracted from the projected demand in calculating</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
		the need for 18,000 AF of new reliable firm yield. Therefore, Denver Water has assumed future increases in conservation in its water demand projections as part of its Purpose and Need. Therefore, future conservation is assumed in all of the alternatives evaluated in the EIS.

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1604 David Petroy</p>	 <p>Name: <u>Mr. David Petroy</u> Company: _____ Address: _____ City: _____ State: _____ Zip: _____ Email: _____</p> <p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Members, Denver Water Board</p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>#1 priority!</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u>David Petroy</u></p>	<p>Unique Comment #1604-2 (ID 2783): <i>#1 priority! [ensuring aggressive conservation measures...]</i></p> <p>Response #1604-2: A summary of conservation measures implemented by Denver Water is provided in DEIS and FEIS Table 1-2.</p>

Comment-Response Report (Urge You Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1620 Adam Cudd</p>	<p>Name: <u>Mr. Adam Cudd</u> Company: _____ Address: <u>PO Box 1301</u> City: <u>Winter Park</u> State: <u>CO</u> Zip: <u>80482-1301</u> Email: _____</p> <p>To: <u>Scott Franklin, U.S. Army Corps of Engineers</u> <u>Mayor John Hickenlooper</u> <u>Members, Denver Water Board</u></p> <p>I am writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>[Please add any personal comments you wish to submit:]</p> <p><i>I would like to ask for an extension to review the Draft EIS. It is 2000 pages that take some time to read and fully understand.</i></p> <p>I hope you will take the steps needed to ensure the future health of the Fraser watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Signature: <u><i>Adam Cudd</i></u></p>	<p>Unique Comment #1620-1 (ID 2192): <i>I would like to ask for an extension to review the Draft EIS. It is 2000 pages that take some time to read and fully understand.</i></p> <p>Response #1620-1: The following is a summary of the initial public comment period time frame and subsequent extensions. A Notice of Availability of a DEIS and Public Notice announcing the receipt and evaluation of a Clean Water Act Section 404 Permit application from Denver Water for the Moffat Project was issued on October 30, 2009, which included an initial 90-day comment period (October 30, 2009 to January 27, 2010). A second Notice of Availability was issued on December 18, 2009. During the comment period, the Corps received numerous requests to again extend the comment period on the DEIS and permit application. Based on the public's need to review additional documents referenced in the DEIS, to allow ample opportunity for the public to provide substantive comments, and to facilitate a timely and efficient review process, Omaha District Commander Colonel Robert J. Ruch determined that an additional 16-day extension was warranted and reasonable. Thus, the comment period was extended to March 17, 2010, for a combined public review period of 138 days.</p>

Urge You Modified Form Letters

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
URGE YOU MODIFIED FORM LETTER — STANDARD		
<p><i>[The Urge You Modified Standard Form Letter shown here on page 1 was signed by all the commenters listed below.]</i></p> <p>Comment #1404 Eric Moore</p> <p>Comment #1405 Ernest Fullerton</p> <p>Comment #1406 Scott Wells</p> <p>Comment #1407 Blaine Haskell</p> <p>Comment #1408 Mike Rieber</p> <p>Comment #1409 Kevin Kane</p> <p>Comment #1410 Ben Clark</p> <p>Comment #1411 Richard W. Wheeler</p> <p>Comment #1412 James Sproles</p> <p>Comment #1413 Fred Martin</p> <p>Comment #1414 Jeff Landsbach</p>	<p>To: Scott Franklin, U.S. Army Corps of Engineers Mayor John Hickenlooper Member, Denver Water Board</p> <p>We are writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River and the Colorado Headwaters. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to:</p> <ul style="list-style-type: none"> • Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the <u>accumulated</u> impacts of past, present and proposed diversions; • Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and • Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. <p>We hope you will take the steps needed to ensure the future health of the Fraser and Upper Colorado watershed, and the fisheries and communities that depend upon it. Thank you.</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p> <p>Name _____ Address _____</p>	<p>Form Letter Comment #1363-1 (ID 2682): <i>We are writing to urge you to help protect a beautiful and valuable part of Colorado's natural heritage: the Fraser River and the Colorado Headwaters. Denver Water's proposed Moffat expansion project could put this very special place at risk. We ask that you ensure the project moves forward only if adequate measures are included to: •Provide sufficient flow to maintain a healthy, viable river ecosystem – including both base flows and peak flows needed to maintain river habitat and flush sediment, and with full consideration of the accumulated impacts of past, present and proposed diversions; •Provide for ongoing monitoring and adaptive management, so that if mitigation efforts are failing to maintain fish and other aquatic life, they will be strengthened; and •Ensure that aggressive conservation measures – including efforts to reduce outside water use through more water-wise landscaping – are adopted in all of the cities that will be supplied through this project. We hope you will take the steps needed to ensure the future health of the Fraser and Upper Colorado watershed, and the fisheries and communities that depend upon it.</i></p> <p>Response #1363-1: The Board of Water Commissioners (Denver Water) has committed to provide flushing flows in the Fraser River, St. Louis, Vasquez, and Ranch creeks. Denver Water has also committed to forgo diversions when stream temperatures associated with low flow conditions are elevated. Refer to the Final Environmental Impact Statement (FEIS) Appendix M for a description of the proposed mitigation measures. The U.S. Army Corps of Engineers (Corps) is considering imposing such permit conditions to mitigate effects in the aquatic environment, if a permit is issued. In addition, to complement the mitigation measures, Denver Water is committed to the Learning by Doing (LBD) Cooperative Effort to</p>

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1415 Karl Olsen</p> <p>Comment #1416 Ivan James II</p> <p>Comment #1417 Jane Mair</p> <p>Comment #1418 Gene Schlosser</p> <p>Comment #1419 A.J. Willis</p> <p>Comment #1420 Brad Wright</p> <p>Comment #1421 Kyle Messach</p> <p>Comment #1422 Shane Gwin</p> <p>Comment #1423 illegible illegible</p> <p>Comment #1424 Sinjin Eberle</p> <p>Comment #1425 Erica Stock</p> <p>Comment #1426 Brandon Trujillo</p> <p>Comment #1427 Charles Trujillo</p>		<p>enhance the existing environment and stream flow conditions (FEIS Section 4.3.1). For example, Denver Water will work with the Management Committee of the LBD Cooperative Effort to coordinate operations of its diversion structures in an effort to provide flushing flows, enhance peak spring flows and/or augment low flows. Specific enhancements that could address low flow and flushing flows include:</p> <ul style="list-style-type: none"> • 1,000 acre-feet (AF) annually of bypass water from the Fraser Collection System for environmental purposes. • Up to 1,000 AF annually of releases from Williams Fork Reservoir and 2,500 AF of carry over storage in Williams Fork Reservoir for environmental purposes. • Denver Water agrees not to reduce USFS bypass flows during a drought unless Denver Water has banned all residential lawn watering in its service area (Denver Water has never banned residential lawn watering). <p>FEIS Appendix M contains Denver Water's Conceptual Mitigation Plan proposed by Denver Water to mitigate the Moffat Collection System Project (Moffat Project or Project) related impacts identified in the Environmental Impact Statement. The Corps will determine if the proposed mitigation would offset identified impacts. The final mitigation measures will be specified by the Corps as Section 404 Permit conditions, if a permit is issued.</p> <p>Conservation is part of the solution for water supply projects. The Purpose and Need of the Moffat Project is to develop 18,000 acre-feet per year (AF/yr) of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant. The proposed additional supply and</p>

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1435 J. Santistevan</p> <p>Comment #1436 Kim Prescott</p> <p>Comment #1437 Karen Dils</p> <p>Comment #1438 David Jordan</p> <p>Comment #1440 Dennis Curran</p> <p>Comment #1441 Gregg Wagner</p> <p>Comment #1442 Teresa Wagner</p> <p>Comment #1444 Charles Rush</p> <p>Comment #1445 illegible illegible</p> <p>Comment #1447 Ashton Rollins</p> <p>Comment #1449 Matthew Luth</p> <p>Comment #1450 Victor Kushdilian</p> <p>Comment #1451 Stephanie Garbo</p>		<p>reservoir storage address a projected shortfall in Denver Water's supply and an imbalance in Denver Water's Water Collection System. This imbalance has resulted in system-wide vulnerability issues, limited operational flexibility to respond to water collection system outages, and can seriously jeopardize Denver Water's ability to meet its present-day water needs. Therefore, an all-conservation option would not meet the Purpose and Need for the Project. It should be noted that almost half (i.e., 16,000 AF/yr) of the 34,000 AF water supply shortfall identified by Denver Water would be met through conservation so water conservation is a part of all alternatives. Denver Water has implemented an aggressive conservation plan to achieve sustainable long-term reductions in demand. A summary of conservation measures implemented by Denver Water is provided in Draft Environmental Impact Statement and FEIS Table 1-2.</p>

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1452 Dan Kloster</p> <p>Comment #1454 Jim Coleman</p> <p>Comment #1455 BJ Baines</p> <p>Comment #1457 Jack McLaren</p> <p>Comment #1460 John McLaren</p> <p>Comment #1461 Daniel J. Larkin</p> <p>Comment #1463 Don Wilson</p> <p>Comment #1464 Joe Caperton</p> <p>Comment #1467 Richard A. Clarke</p> <p>Comment #1468 Bud Bumgarner</p> <p>Comment #1471 Anthony Babb</p> <p>Comment #1472 illegible illegible</p> <p>Comment #1473 Nelda Gamble</p>		

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1475 Isaac Ruybal</p> <p>Comment #1476 Marc Saital</p> <p>Comment #1477 Robert Anderson</p> <p>Comment #1478 Chris Pinder</p> <p>Comment #1479 John Gamble</p> <p>Comment #1481 James B. Lawmon</p> <p>Comment #1483 Paul M. Turner</p> <p>Comment #1484 Mike McDonough</p> <p>Comment #1485 Doug Kesler</p> <p>Comment #1487 Jerry Vaughn</p> <p>Comment #1488 Barbara Luneau</p> <p>Comment #1490 Mark Rayman</p> <p>Comment #1491 William Brower</p>		

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1492 Dean Fentress</p> <p>Comment #1494 Patrick Loehrlein</p> <p>Comment #1500 William Buchholz</p> <p>Comment #1501 Lee Erb</p> <p>Comment #1502 D. Lippold</p> <p>Comment #1503 Gordon Moore</p> <p>Comment #1504 Chuck Howard</p> <p>Comment #1505 Richard Bevington</p> <p>Comment #1506 Cody Hale</p> <p>Comment #1507 Ross Stansaled</p> <p>Comment #1509 Dave Traxinger</p> <p>Comment #1510 James Hoovew</p> <p>Comment #1511 Lynn T. Goin</p>		

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1512 Dennis Zimmerer</p> <p>Comment #1513 Rick Kalamaya</p> <p>Comment #1514 Willard Bissell</p> <p>Comment #1515 Ken Moran</p> <p>Comment #1516 John Oppenlander</p> <p>Comment #1517 Erik Wilkinson</p> <p>Comment #1518 Tom Tinkle</p> <p>Comment #1519 Dick Shinton</p> <p>Comment #1520 Tim Glomb</p> <p>Comment #1521 Whitney Zink</p> <p>Comment #1522 illegible illegible</p> <p>Comment #1523 M.M. Mierzejewski</p> <p>Comment #1524 Ken Kimminau</p>		

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1525 Mike Hostelter</p> <p>Comment #1526 Nash Cardenas</p> <p>Comment #1527 illegible illegible</p> <p>Comment #1528 illegible illegible</p> <p>Comment #1529 Walter Engel</p> <p>Comment #1530 Craig Nash</p> <p>Comment #1532 Berle Larned</p> <p>Comment #1533 Greg Zimmerman</p> <p>Comment #1534 Michael McGoldrick</p> <p>Comment #1535 Jamie MacBeth</p> <p>Comment #1536 R. Saunders</p> <p>Comment #1537 Ralph Absetz</p> <p>Comment #1539 Mike Hobbs</p>		

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1540 Bill Stone</p> <p>Comment #1541 Britt Bitterton</p> <p>Comment #1542 Mike Shallenberger</p> <p>Comment #1543 Dave Dombrowski</p> <p>Comment #1544 Bruce Phelan</p> <p>Comment #1545 Allyn Kratz</p> <p>Comment #1546 Paula Fothergill</p> <p>Comment #1547 Ken Neubecker</p> <p>Comment #1549 Steve Lousen</p> <p>Comment #1550 illegible illegible</p> <p>Comment #1552 Mark Roberts</p> <p>Comment #1554 Aaron Barnett</p> <p>Comment #1555 Anthony Naranja</p>		

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
<p>Comment #1557 Tim Emery</p> <p>Comment #1558 J. Elbert Rice</p> <p>Comment #1560 Clem Rinehart</p> <p>Comment #1561 Tim Mauck</p> <p>Comment #1563 Brian Lutman</p> <p>Comment #1564 Charles Stansbury</p> <p>Comment #1566 James Stringer</p> <p>Comment #1567 John Davenport</p> <p>Comment #1568 Todd Fehr</p> <p>Comment #1569 Caleb Amyot</p> <p>Comment #1571 Joe Montoya</p> <p>Comment #1572 Lauren Hering</p> <p>Comment #1573 Michael D. Miller</p>		

Comment-Response Report (Urge You Modified Form Letters)

Comment Information	Comment	Comments and Responses
Comment # 1574 Edward Lynch Comment # 1575 Fred Miller Comment # 1576 Chris Striebich		

Comment-Response Report (Urge You Modified Form Letters)

This page intentionally left blank